THE RELATIONSHIP BETWEEN PSYCHOLOGY AND SOCIETY

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The purpose of this study was to critically explore the relationship between psychology and society. Many aspects of the powerful relationship that was found were discussed. In particular the lack of a social structural analysis in psychology was seen as vital in shaping how society affected psychology and how Psychology affected society. Very little discussion of what type of relationship psychology has and should have with society was discovered in the literature. Upon a more detailed examination of major forms of psychology and alternative forms some recommendations for change are made by the author. The main criticism and exhortation is for at least some discussion and recognition of social structural forces influence on psychology and its relationship to society.

Introduction

> Science tells us what we can know, but what we can know is little, and if we forget how much we *cannot* know we become insensitive to very many things of great importance.
> Russell (1945, p 8)

Psychology's theories or philosophies of science including Cognition, Behaviour, Biology, Social Constructionism and Humanism all address the issue of the individual in society. The relationship of Psychology to the social world is determined by a series of power relations influencing and being influenced by institutions in the larger society. Unfortunately, however, the acknowledgment of social-structural relations seldom occurs.

Psychology uses Empiricism a theory of science that has a scientific method based on the *observable* and the *objective.* Because this method does not take into account the unseen social-historical forces that underlie human society, the objectivity and scientific judgement of a psychologist's analysis will inevitably be flawed. Social-structural analysis offers a desirable alternative. But because Psychology does *not* use such an analysis, it fails to gauge the

effect of society on the individual; its tools of analysis are inadequate for a larger, more encompassing study of the human being. The most worrying implications of this inadequacy are:

1) A science unable to *meaningfully* help human beings address problems of a social-structural nature.
2) A science with a poor capacity for self-criticism and self analysis.

In effect, it is not only necessary but of *paramount importance* to study how society shapes both Psychology and the individual. Here is a scientific field that has traditionally operated in terms of individualism, reductionism, observable positivist-empiricist dogma and hypothetico-deductive methodology. These concepts are useful, but only gain practical value when considered in conjunction with a social-structural analysis. Likewise, without a traditional scientific analysis a social-structural evaluation alone is equally dangerous.

In psychological experiments social context is stripped away in an attempt to maintain 'control' and preserve semblance with the natural sciences. This is of no practical value, considering the impossibility of studying human beings apart from their social context. What results, therefore, is a science that is unable to relate to its own society.

This is not to suggest that what Psychology has achieved is 'wrong' or unworthy of praise, indeed, what it *has* achieved has been through hard work and creativity, remembering that it has had to deal with types of complexities alien to other sciences. Herein perhaps, lies the problem: Psychology may not have yet grasped the true magnitude of its task. For one thing, its principal subject (humankind) can only be examined by a *member* of that subject group. By moulding the human into a simple object of study with a cast of simple rules and outdated methods borrowed from the physical sciences (e.g., field crop science, simplistic Newtonian science), or even by using the rat to draw parallels with human behaviour, it has let itself down. Clearly none of these methods are adequate for capturing the brilliant complexity of *Homo sapiens*.

In reality, Psychology has adopted an outdated form of science from the Nineteenth Century. As Braginsky and Braginsky (1974, p vii) comment:

> Few will quarrel with the contention that the present unsatisfactory status of Psychology is in great measure attributable to the

inappropriate adoption of Nineteenth Century physics as a model.

This outmoded model takes an extremely rigid perspective, maintaining that goals or standards of prediction and control are untenable. As Baker (1992 p 9) comments;

> The net effect of this intellectual straight jacket has been to depersonalise both would-be scientists in Psychology and what they in turn would take to be the proper subject matter of the discipline. More insidiously, it has created the myth of value-free, atheoretical science, the practitioners of which could be non-intrusive, totally objective observers of their fellow humans; that they could eliminate any flow-on effects between themselves and their phenomena of interest, and that they could set themselves aside in the objective reporting of phenomena.

The end result is a psychology either unable or unwilling to see human behaviour and thought in its entirety, ie. in its social-structural context. Appraisals made by psychologists are not made on scientific judgements alone, but are dependent upon subjective moral and personal philosophies. The discipline is woven from the political, economic, and other social-structural elements of society. The fact that it does not question *how this influences its own methodology* is the crux of the problem. Being unconscious to its own problems, psychology is therefore not in a strong position to help with the causal social-structural aspects of its patient's problems. It is perhaps possible to compare psychology to the 'eye that sees everything but itself'. The reason can be logically traced back to the fact that it is a case of the brain studying itself, of people *shaped* by society trying to *study* that society.

It can be concluded that psychology is unwilling to acknowledge its true relationship to society. Three questions fundamental to any science that are *not* being asked by psychology are outlined by Law (1991):

1. What is the nature of knowledge/ knowledge of high status?
2. what particular characteristics keep society together and apart?
3. what is the nature of divisions and inequalities between individuals and classes in terms of problems of distribution?

In Chapter One a description of psychology is given, in terms of methods, goals and philosophies. Some major general criticisms of the field follow. In Chapter Two some major areas of psychology are examined, to see how they are rooted in the underlying philosophies of science. Similarities and differences between these major areas of psychology will be discussed, and it will be shown how a social-structural analysis is missing from these major areas of psychology. Chapter Three offers a definition and discussion of social-structural analysis with relevance to psychology. Alternative schools of thought which incorporate this analysis (to contrast with the forms of Psychology outlined in Chapter Two) are described. In Chapter Four the implications of psychology's relationship to society are discussed. The organisation of psychology is seen as a significant factor. Chapter Five shows how the relationship between psychology and its human subjects is held back by an incapacity for self-criticism. The resulting dangers for society are suggested through the specific example of IQ testing. In Chapter Six the need to reassess our definitions of "fact", "truth" and "logic" is discussed. The human sciences reflect a fundamental human arrogance which pervades scientific work and its assumptions. Chapter Seven outlines *Chaos Theory* , which paradoxically offers new hope to psychology at the expense of the traditional view of physical sciences. Finally, Chapter Eight offers an overview of problems within the field of psychology, together with some suggestions for positive change.

A area for criticism of this thesis will be the lack of a vast array of empirical, hard and fast evidence. This, however, is only further evidence to support one of the main arguments of this thesis, that there is a fundamental lack of discussion on the subjects broached. If there

was plenty of qualitative discussion using a social structural analysis, for example on the topic of class and its effects, there would be no point to make.

Chapter One

1) Psychology's Methodology and Paradigms

> Psychology is fragmented, overspecialised, method-centered and dull. Standard (1962, p34).

> In brief, therefore, it is clear that the scientific method is unsuited to Psychology because the subject matter of Psychology is conceptually different from that of the classical sciences, for which the method was developed. Kline (1988, p21)

> ...the nature of scientific method, with its emphasis on precision and limitations to the questions asked, encourages work which is essentially trivial but correct and technically faultless. Kline (1988 p29)

A) What is Science?

The Deductive Nomological Model of explanation states that because scientific explanatory statements are confined to empirical events and grounded in universal laws, this "logic" *makes them scientific.* Predictive scientific statements, therefore, must be able to say what would happen under any conditions, not only what *could* happen in a particular instance. Such prediction is the goal of science.

Science comprises of four main aspects of scientific investigation;

1. Ontology is concerned with 'being' and what we believe to exist. What, for example, is the particular object of investigation of psychology?

2. Epistemology is concerned with 'knowing'. What sort of statements will we accept as a justification for what we believe to exist?
3. Methodology is concerned with the 'logic' of inquiry. How do we validate and discover what we assume to exist?
4. Methods concern the 'technique' for collecting data. What techniques do we use to get evidence for confirming or disconfirming our hypotheses?

B) General Criticisms

Historically psychology has been a empirical science, but for a considerable time now Empiricism has been under fire. It has, nevertheless, survived. Perhaps this is due to the fragmented nature of its opponents, or maybe it has grown so firmly rooted in the establishment, it has become incomprehensible to operate without it, such has been the investment. Rescher (1987 p44.) has this to say about empiricism: "Instrumentalistic Empiricism is risk-aversive. Like scepticism it is a policy of 'safety first', rooted in the fear of mistakes."

Some of the main criticisms of Empiricism follow.

Exclusivity. Many branches of learning do not provide the criteria required for scientific thinking. psychology is no exception, and empiricist methodology as a result often has little use. In reality, most 'scientific' pursuits, methods and theories do *not* fit the formal scientific framework, and on closer scrutiny could not be accepted as employing strictly scientific methodology. Evolutionary theory, for example, does not qualify as a universal law as it cannot anticipate the long-term future of a species. The 'law' of natural selection is actually an after-the-fact postulate. Only from the observation that a species has survived can we say that its attributes are the gift of selection. It seems, however, hardly rational (although Rationalism, as will be argued later is an over-valued commodity) to describe the theory of evolution as 'non-scientific'. Another example is the theory and identification of a black hole; this research seems entirely unscientific as technically the object of study is unobservable.

The inappropriateness of Empiricism is a pressing matter for the social sciences. All sciences use non-universal laws, psychology in particular, so does this mean they are all unscientific?

Fallacy of omniscience. How do we know a law of science is true and universal if the future may disconfirm it? Although Empiricism seeks to describe in terms of 'always' and 'everywhere' the wisdom of such an enterprise must be questioned. For laws to attain a high level of pragmatic usefulness *universality* needs to be toned down, since we need information about reality that is both tenable and as well as being secure and highly informative and definite.

The adoption of pragmatic laws which work *now*, even though they may not in the future, is perhaps a far more rational and sensible approach than seeking universal laws. As Robinson (1985 p112)states: "The inescapable burden of human fallibility imposes limitations on our grasp of the truth.". Humans are undeniably fallible, and no matter what our laws and theories are, they are *created and tested by humans*. Psychological laws are more at risk because it is a case of the human studying itself, with that same fallible creature checking its own analysis. If there is a problem with the instrument of analysis, ie the brain, only that same flawed instrument can be used to check up on it. In the field of psychology a more flexible, pragmatic approach to scientific laws is recommended rather than grandiose universal laws which lack this practicality. In short, we cannot say whether a certain universal law will hold true in the future, considering we cannot say for certain that it is true at the present time.

Ideographic versus nomethic explanation. The human is shaped by elusive complex variables that change from one human to the next. I would not take the extreme view and say there are no similar or identical variables, but rather that a human is likely to be a *mixture* of unique and shared, the proportions of which are indeterminable. Any explanation of psychological attributes in an individual has to take into account the 'tailor-made' motivations for that human's behaviour. An understanding of the actions of individual X requires not only shared knowledge about species X, but also *intimate knowledge* of individual X alone.

Irreducibility of social phenomena. In many instances the *social* and *historical* cannot be described scientifically without using irreducible and unscientific *social* constructions which may not 'exist' in the concrete world. The state, nationality and class, for example, although very real and powerful influences on the human, are not part of the *physical world*, they cannot be put in a box and observed. They *are* real without having an independent physical existence according to Marx, because they have observable and real *effects*.

The social nature of science. Scientists are people who work within definable, social-historical and personal contexts which are impossible to remove from their research. Meaning to be gained from the social-historical sphere represents human subjectivity, and is therefore shunned by science. Psychology attempts (with little success) to remove the social aspects from its research. Considering the impossibility of removing human subjectivity in psychology of all fields, a more open-minded outlook to this dimension would have greater practical value

Empirical observation. In order to be scientific observation is made according to empiricist thinking. These include the claims that:

- Theories are subject to observational tests
- Theoretical propositions are defined in terms of the observable phenomena they are introduced to explain; concepts are meaningless unless defined in terms of observable phenomena

Whether or not these are desirable conditions to use is debatable, as argued by Greenwood (1992 p 133):

> Empiricists believe they are not held to make independent and meaningful ascription's of properties to postulated entities, but rather are treated as intellectual constructions that serve as linguistic instruments for the conceptual integration of the laws in terms of which they are defined.

Greenwood believes these laws of Empiricism set up a circular argument: any explanation of empirical laws in terms of intervening variables embodies *information not already contained in the statement of the empirical laws.* Thus the only guide to the discovery of *new* empirical laws is knowledge of *previous* empirical laws.

Empirical observation, the basis for much theory-confirmation in psychology, is in fact no more than a glorified version of 'seeing is believing'. Since scientists are limited by their own perception and fallibility, inter-observer agreement is *not* a sufficient criteria for theory-confirmation. 'Empiricist' observation is no different fundamentally (apart from the jargon) from normal observation, and offers no new safeguards from human error. In fact, no matter how hard it tries, Empiricism still makes use of unobservables, and ironically enough in psychology it is these *unobservables* that are so crucial to theorising.

Operational definitions. Operational definitions are very important to operationalism. Operationalism is the belief that the validity of a construct rests on the validity of the procedures which were used to establish it. psychology typically only accepts statements which can be scientifically tested. Unfortunately this is often taken to mean that anything testable is "scientific". Drowning people to prove innocence or guilt is testable and therefore scientific? Operational definition is seen as an *inadequate* criteria for distinguishing between 'scientific' and 'non-scientific methods and areas of research.

Statistical Generalisation. Even the most illogical experiment can yield a statistic, and statistics are only as good as the user. Too often statistics yield statistically significant (usually the .05 level) results due to the sheer weight of numbers used rather than the power of the relationship between variables. The significant result is also over-valued when labelling theories 'true' or 'false'; they should be used as support for evidence for or against, but not as the *determining factor* in the last analysis.

Prediction and Control. Prediction and control are the two aims of an empiricist psychological science. But they are inappropriate goals due to the nature of psychology in society. Psychology cannot (even if it was desirable) control society, rather elements of society control it. 'Perfect' control comes from perfect *domination*: fascism, communism and totalitarianism for example. Control and prediction are inappropriate goals even in the physical sciences, since the forces of the universe have proven to be impossible to control *or* predict. The human mind, in its incredible complexity, therefore, poses a huge barrier to any scientific efforts to predict, let alone control it.

C) Replies to these Criticisms

1) The reasons for the failure to achieve the empiricist model of science may be determined by future research.

2) Science is at least *trying* to achieve the model, and we should accept scientific explanation as the best we can do. For example, we can say that Newtonian theories are true within certain boundaries, but we cannot say he is 'wrong' or his laws are 'not true'. Unfortunately such a defence of Newton is limited, as it is akin to saying Newtonian laws are 'one hundred percent correct and predictive apart from where they are wrong'. A more pragmatic appraisal of what is 'scientific' should be used; this would include Newton's laws as scientific only in *the limited terms of human perception*. Newton took observation to its limit in an effort to prove his laws, but unfortunately proof by human observation does not provide proof of universal laws. Also, the *successful application* of theories is not necessarily an indication of their *truth*, and the inability to distinguish useful, modern theories which are durable from those that are not, is still a problem. All that can be concluded is that there is an explanation *why* a theory works, but whether or not this explanation is provided by the theory itself *cannot be proved.* The empiricist method is still taught to be the best one, but as it is so inappropriate why is it encouraged?

Another defence to this criticism is that whatever personal and social context a scientific law-maker brings to his or her work is 'irrelevant' to the truth of their particular theory. But, since the only meaning a

theory has in society is its effect on that society and vice versa it can hardly be an irrelevant influence.

Psychology's methodology places a certain amount of credibility to the results found if its methods are closely followed. There may be therefore a temptation to accept these results at the expense of common sense.

D) Description versus Meaning

Good science is often equated with precise quantification and accurate expression of ideas. Yet it is more than this, requiring a quality of ideas as well as quality of methods. Describing and predicting aspects of reality are fine, but if science remains confined by these goals then other kinds of scientific investigation are not considered. What *ought* to be becomes constrained by what *is*; what *is* becomes accepted as what *should be* when description is valued ahead of prescription. Science, as a result, reinforces the status quo. What exists *now* is essentially equated with what *should be* in a future time.

The problem of bias and social value in human society (and therefore in research) is intractable and unavoidable. As social scientists we must make human subjectivity and value judgements a *necessary component* of research. If scientific application to human society is to have any practical worth, avoidance of these issues is not only impossible but also largely meaningless. As Gottlieb (1980 p 4) believes; "... a completely value-free social science is a social science of little value."

There is a common belief that through a higher knowledge of human behaviour and mental processes one will be able to devise theories that can practically applied in the same manner that theories in physics can be applied to engineering. In this context much emphasis has been put on *scientific values* and promoting strict *neutrality* rather than emphasis on the implications of basic scientific findings. The predominant value in psychology is that objectivity is as important a goal as the discovery itself.

Psychology has been heavily influenced by, but has not actually managed to satisfy any of Empiricism's demands. Nevertheless, it has striven to be an empirical science.

E) Freedom from Value, and Neutrality

> Perhaps our best option is to maintain as much sensitivity as possible to our biases and to communicate them as openly as possible. Value commitments may be unavoidable, but we sure can avoid masquerading them as objective reflections of truth. Gergen (1973 p312).

The value-free fallacy in psychology, the assumption that a psychologist's work is 'unaffected by biases', shows up an intellectual failing, leading to flaws in both an experiment and its application. Even if today's psychologist could realise that it is impossible to be totally value-free he or she would still believe that a value-free science is something to strive for. But if it *were* possible to become value-free, it would only serve to alienate the psychologist from the society they were concerned with. Morality, for example is a type of value that psychology tries to avoid in its research judgments. Williams (1980 p 83) believes this avoidance is leading to a path of scientific oblivion:

> ...because morality is so elusive a concept, the careful researcher may be inclined to exclude it from his considerations, arguing that it is largely a matter of personal or cultural style. But I believe we are living through an age when morality is becoming a stronger and stronger force in the whole world, and for us

> to ignore it in our decision theory research is for us to become largely irrelevant.

An example of how social value bias affects scientific judgements is provided by Freidrichs (1971), who surveyed psychologists on whether or not they believed in Jensen's racially based IQ model. He found (as would be expected) that most disagreed with Jensen, because psychology supposedly attracts those who view people as relatively flexible in potential. But *age* and *geographic residence*, which should *not* have had an influence on the believability of such a model, certainly did. Those in the states of Alabama and Mississippi (Southern States, with a history of deep-seated racism), agreed more with Jensen's model, while those that disagreed were on average 5 years younger than those that agreed.

The value-free goal, therefore, is obviously impossible to achieve. Important topics which require discussion and analysis of social meaning and context have been ignored. It is as though the problems of housing, pollution, food, crime, class, etc have become unpopular, arrogantly viewed as being 'old hat', 'boring' or 'not fit' for Psychology. 'Not fit for Psychology', because to talk about why people starve (a concern for most people in the world), is to engage in *value discussion and analysis.* Psychology, through the guise of maintaining 'proper' academic and scientific inquiry by being value-free has left these concerns 'behind'. This is unfortunate, considering that the decision that psychology should be 'value-free' was the biggest value judgement (and so by its own criteria the biggest value error) ever known to psychology. Objective solutions to the world's problems *can* be found, but any objective solution becomes immediately value-laden as soon as it is relevant to the real world. These objective solutions, as a result, are quickly dismissed, because our value judgement tells us that they are abhorrent, disgusting and inhumane. Some examples: to remove unemployment, 'round up all the unemployed in a stadium and shoot them'. Or to stop crime 'chop off both hands of all offenders'. On a *purely objective* and scientific level an infallible solution has been found, but on a value-laden level the above solutions are *clearly unacceptable* (not that this has stopped societies in the past). So

psychology, rather than forsaking its reputation as a value-free, objective science has instead given up being a discipline relevant to the real world. If it is to become relevant it *must become value-laden.*

On the other hand, recent changes in Soviet psychology (as outlined by Gindis 1992 p34) are interesting, because they show how post-communist psychology is looking at itself in a critical and realistic way: "...one can find sharp and revealing criticism, confessions and data which contrast significantly with the previously published rhetoric, claims and data." These results now on offer in Russian journals hold an important lesson for Western countries; ie we should not condemn the psychological science of the former Soviet or present Perestroika, because our own psychology is probably just as flawed. Note, the Russian experience showed that data derived from psychological methods was dependent upon the particular socio-political situation that created it. Our own social-structural situation shapes a psychology that is familiar to us, in contrast to a strange, 'corrupt' Soviet psychology. It is easy to point a finger at a science which is so different from your own, and, in reality, the social-structural and institutional influences in Western Society have just as much power to corrupt.

The 'value-free' attitude has serious implications for psychological self-analysis. psychology, indeed is highly active in analysing itself, but the *quality* of this analysis must be questioned. If institutions and social forces *do* pose a danger to scientific enterprise, psychology due to its value-free commitment is in a poor position to acknowledge the fact. We are *not* the unbiased neutral observers Empiricism would have us be; we should stop trying to pretend that we are. A value-laden science, however, is dangerous and problematic to adopt. The saying goes that 'if you play with fire your fingers will get burnt'. Psychology's area of research *is fire* and this cannot be avoided, so perhaps the more finger-burning the better. Its subject of study is *not* rats in a highly controlled, and predictable lab environment, rather the infinite complexities of the human brain. Perhaps it is a reflection of human nature (the 'psychology of psychologists') that psychology has removed all the dangers from its study, it is wary of the fire. Without a doubt involvement with socially relevant issues is the more difficult road to take, but it is the right one.

Like the rest of us, psychologists have value-based premises, stereotypes and preconceptions so, we should also recognise they do not have to be servants of their ideology. I do not propose that psychologists assume a detached, disinterested, amoral posture, but instead that They must recognise and make public their ideology, while at the same time recognising the potential and actual impact of these personal biases on their work. Value can work *for or against* psychology, social-structural influences can be a good servant but are a poor master.

F) Obsession with the Physical Sciences

Psychology is still obsessed with becoming a physical science, to the point that its efforts have been desperately channelled into looking like one rather than actually becoming one. Standard (1962, p 193) recognises this fact;

> The discipline is still much concerned to establish itself as a science, but the psychologists naive conception of science has lead them to adopt the more superficial characteristics of the physical sciences.

Psychology eagerly embraces the belief that science holds *one true factual paradigm* to answer our questions. This is actually in stark contrast with the other physical sciences; physicists now teach for example, that there may be at least eleven dimensions to the universe. It is therefore reasonable to expect our brains (which are part of the universe) to also have eleven dimensions. Singular explanations based on three dimensions may work as far as human sensibilities go, but are unlikely to accurately reflect fact as it exists independently. In psychology only three dimensions are accounted for, and further study in this area would be dismissed as 'inappropriate'. The lack of scientific research on the subject, in contrast to Physics, is a testament to how far psychology is from actually becoming a physical science.

Psychology forgets that answers are yet to be discovered. How can we know for certain what is and what is not plausible? New discoveries may very well invalidate all previous assumptions and reasoning. Is not sensible to suggest, therefore, that psychology investigate a wide range of phenomena, including the seemingly ridiculous? (eg 10 million Americans believe they have been abducted by aliens). Whether such claims are true or false is not important, but the potential for new knowledge of the human psyche is awesome.

For a psychologist to claim a problem is 'unable to be solved' is to claim to have a 'deeper understanding' of the problem. Koch (1981, p 263) places the future within the realm of his own understanding when he says "...very many of the questions, large or small, existential or actional, intellectual or practical which agitate human beings are indeed meaningful but undecidable." One cannot know if a problem is solvable before serious attempts are made to solve it. Indeed, some things *may* be unsolvable, some areas *may not* be appropriate for study, but to claim to know for certain is arrogant.

G) Ecological Validity

Ecological validity describes whether what you measure in the laboratory holds in the natural world. To achieve this, psychology has tried to *control* its experimental situation with the extreme example being Skinner boxes. In fact psychologists now have such 'control' over their experimental situation, that results are often simply a product of their own contrivance. But contrived from what? What sort of questions are asked? How are the hypotheses formulated? What kind of data is accepted into their conclusions? On further scrutiny, we see such experiments are *designed* to provide conditions which will make results fit. psychology is not a 'voyage of discovery', rather a conformation of expectations. *Hypothesis from expectation* provides the intuitive and inventive for the inquiry and controls the nature of the experiment. It is in light of this *expectation* that some observations are held to be 'relevant' while others are not; and likewise with the methods and experiments. The psychologist with his or her own personal biases determine these factors. In an experiment the real

danger is that a psychologist has no challenge to their preconceptions, due to (a) the degree of manipulation they exert over the environment, and (b) the type of feedback they accept. The psychologist *designs* an environment where seldom more than two variables are allowed to meaningfully change the environment is designed not to surprise the psychologist but to remove anything that might upset the result they are expecting. The experimenter risks asking *too few* important questions. This results in very weak proof dressed-up as an overwhelming proof. It is no surprise, then, that Psychology's historical achievements and worthwhile discoveries are few relative to the work put in. The lack of relevance to the real world can partly be blamed on the experimental method which refuses to acknowledge the infinite complexity of the society it is trying to study. The reality is that it is simply impossible to control for all variables (or even for most of them in a real social situation). Historically the answer has been to give up and move the experiment away from the complexities of the real world. This may have been a reasonable reaction in the interim, but is anyone trying to solve this weakness now? This movement of the experiment from the real world suits 'scientific' psychology, because it can at least pretend to have made scientific 'progress'. Citizens in the wider community and those in the psychological institution are self-assured. Therefore, that they have a method in psychology which *can* discover the laws of human society, by ignoring what is both human and social.

H) Epistemology

Epistemology is the theory of method, or grounds of knowledge. The potential problem is that within the grounds of knowledge the methods vary as a function of social order and context. As a result, there is no way to distinguish between *truth and power.* Psychology does not acknowledge the dangers of such problems when left unchecked. Society and psychology believe that scientific laws are based on good, solid, objective, scientific methods and thought. It is more important, however, as noted by Braginsky and Braginsky (1974 p21) to:

> ...recognise that much of what psychology is today- its theories,

techniques, methodologies, and areas of inquiry- has been constructed by and shaped by social forces.

I) History and the problems of causality

Language is both our greatest achievement and biggest problem. Causal statements are prone to jargon and translation problems, and proof often comes from theorists disconfirming other statements, rather than being certain of their own .

In the beginning, very little effort was spent on *confirmatory methods*; almost exclusive attention was paid to *descriptive methods.* The framework of Empiricism stressed that knowledge was derived from sensory impressions which were joined by the associative process of the mind. Statistics were seen to be emulation's of these associative processes

According to Empiricist theory, all that matters in scientific inquiry is description, summary and measure of association. Causality is equated with (perfect) correlation. Averaging and correlations, therefore, have become the building blocks of our modern day Multivariate statistics, which are the primary descriptive method in Empiricism. Mulaik (1993 p176) has concluded that: "..it is clear that the obstacles to a confirmatory approach to statistics grew out of the persuasive acceptance of empiricist approaches to scientific method". Empiricists deal with things in a piecemeal way, believing that all events are independent of each other. But causality as a functional relationship must take into account the *relation* between variables. Determining causality works well in deterministic systems, such as those Newton studied, but how can this be applied to the complexities of human society? Should the New Zealand brain, eye and cognition be studied with the same old methods, or do they warrant analyses which also take into account an understanding of the particularities of New Zealand society? We assume without hesitation that overseas methods/models are appropriate and best for us. May be there are two cognitive systems for memory for example and that would explain why there are often two theories both with their respective evidence of the

model of human cognition, this suggests that there are two systems not that one is wrong.

When reading the annals of scientific breakthroughs one notes that they often occur not through a stunning use of logic or methods, but rather through lucky guesswork. The discovery of penicillin, for example, has had an immeasurable effect on medicine and was discovered by chance. But this goes against the rigid *methodical* image psychology is trying to convey. The *chance* involved in discoveries is outlined by Humphy (1982 p104):

> Thus many of mankind's most prized technological discoveries, from agriculture to chemistry, may have had their origin not in the deliberate application of practical intelligence, but in the fortunate misapplication of social intelligence.

Fundamental to any scientific method is *proof by replication.* This involves the psychologist investigating the truth of a claim by *replicating* the original experiment as precisely as possible (to gain confirmation that the first study was not simply a 'lucky result' or hoax). Besides several problems that will be discussed later, one practical problem stands in the way of the psychologist today trying to achieve such a replication namely, unwanted variables, which have and will continue to plague psychological research.

The conception of *what science is* must change in the scientist, psychologist and society at large before a significant benefit can be realised for all involved. Sampson (1977 p241) states:

> Psychology acts as though it has discovered something fundamental about persons, it holds this something aloft as an ideal to be achieved. By ignoring the cultural and historical conditions that present this as an ideal, it fails to provide an adequate assessment of alternatives or implications that derive from its ideal.

In the context of Positivist Empiricism, psychology has failed to see the pressure of societal influences on itself as a human institution. The methodology of Positivism places such restrictive and unrealistic demands that it rules out many genuine areas of theoretical advance. Positivist Empiricism is an inappropriate model for psychology, indeed a generally poor one for any science. The ineptitude of this model will be illustrated using the example of Chaos (Chapter Seven), a theory which has exciting ramifications for psychological research . It envisages a future where Psychology would no longer be scientifically disadvantaged relative to other sciences; no longer would the study of the human mind lack scientific credibility due to its difficult nature. Psychology could retain an honest scientific methodology and paradigm which would possess real credibility relative to other sciences, instead of the blind worship of a past model of natural sciences. 'Past' because mainstream natural scientific theory has moved on from Newtonian concepts of an ordered and predictable universe, to the general acceptance of the infinitesimally intricate and difficult worlds of quantum physics.

The areas of concern of Logical Positivism and Empiricism as models of human behaviour are; the mechanistic view of human nature and the neglect of social context. The search for 'universal' laws and the belief in the psychologist as a neutral observer

Each of these concerns is explained:

1) Human action is governed by social rules (norms) which people generate to understand their world. This is undervalued by most qualitative research in psychology, which instead focuses on a limited range of proximal variables.
2) These variables are easier to measure and control, but produce results which are of limited application to the real world.
3) The universal laws of the physical sciences are immutable, but this is not so in the social sciences as these laws are confined to the specific social-cultural time and space in which they occur. Psychology's aim should be to *understand* these processes rather than to seek universal, immutable laws of human behaviour.

4) The final tenant is that findings are value-free. This is very important in applied psychological research where findings will feed back into policy-making areas. A clear understanding of this is needed to reduce psychologist's dependence on existing normative assumptions.

Opponents of Positivism outline several critical flaws in the theory; How do we distinguish true beliefs from false ones? Even if there is 'truth', it does not necessarily follow that we will be able to have access to it; and if we *could* have access to 'truth', we could not speak clearly about it due to our limitation of language.

J) Refutation

Refutation is the process by which a theory is shown to be false using scientific means. Usually this involves predicting what will happen after manipulating several variables. Refutation is supposed to be the fundamental criterion by which any theory is judged when being classed as scientific. There is no problem having refutation as a tool of scrutiny for a theory. There is, however, a problem with the *power* that refutation has been given. If a theory is refuted does that make it useless and defunct? The major limitation of such logic is that any refutation is in fact based on a refutable theory itself. Many of the useful and necessary theories we use today have been refuted already! It is inherently dishonest of science to keep refuted theories afloat, which according to their own criteria are no longer true, universal or acceptable. Science finds that most laws do not live up to the label 'universal' but the laws are nevertheless retained because of their practical worth. Parts of Newton's theory, for example his prediction of the moon's orbit, have been shown to be incorrect. His theories, however, are still held to be universal. A law may be refuted, therefore, but still be useful to society. Furthermore, it is impossible to state you have refuted anything considering what you use to refute them with (observations and knowledge) are themselves theory-dependent. The

'all or nothing' idea of universal theories does not work, and science knows it. Psychology's laws must be recognised for their weaknesses and their strengths. Psychology must learn to use them *where appropriate,* not dismiss them completely on the basis of one refutation. Newton is still rightly regarded as one of the great minds of history because of the pragmatic worth of his theories. The attitude that laws must be universal reflections of some kind of 'absolute' must go.

Falsification is an interesting idea in principle, but when observing psychologists at work one gets the distinct impression that proving their theories false is the furthermost thing from their minds. Instead of seeking to refute their theories, they are determined to defend and extend them as much as possible. Psychologists desperately want their theories to be confirmed, so they shy away from testing their theories in real world situations. The incredibly fragmented nature of psychology and the sheer number of theories would suggest that refutation is not commonplace. Hence, psychologists rarely go for bold conjectures; they are cautious for fear of being found wrong and left isolated.

Although the falsification method is flawed in the way it is used, I see it as an inherent goal of science and as a necessary part of psychology. The use of refutation must be tempered so as not to shelve theories prematurely but still show up their flaws. But, undeniably, fallibility has failed to produce the needed tool for sifting the poor from the good. Little (1986 p184) comments that "Falsification is an unsound principle of theory choice, since it is an extreme principle that requires the rejection of any theory with false consequences." This is perhaps unavoidable in psychology. Refutation proves something false in *one situation*, and here we are often not dealing with clear-cut 'black and white' results, but rather many shades of grey. Perhaps a *pragmatic standard,* in terms of a theory's usefulness to humanity, would be the better test of a theory.

K) Statistics

Statistics are used widely by psychologists, and while I believe them to be a useful tool, I also feel we have come to rely on them too greatly.

Publication criteria for getting research into journals over-emphasise statistical proofs. If a submission does not have this 'necessary' statistical analysis the chances of it being published are unjustifiably less.

Statistics often *determine* the acceptance or rejection of a given hypothesis. But a simple statistical test, while useful, should not be all-pervasive. With such a complicated subject matter, psychologists need assessment procedures of a high quality. Indeed, statistical tests do not need to be eliminated, rather *replaced* with better ones, ie, tests which are *suited* to the job of studying humans within their society. At the present, psychology largely uses the one dichotomous significance test, where evidence is interpreted as against the null hypothesis, if p is no greater than .05 and for the null hypothesis if larger or equal to .05 . The fact that the .05 level has become so crucial has less to do with practical significance than with comforting psychologists with a definite and reassuring cut-off point. This familiar .05 figure has become too powerful. .06 is just as worthwhile, since it is a case of personal arbitrary distinction of what 'should be' significant. And even though there is no sharp division between .051 and .049, this difference could potentially be crucial in psychological decision-making. How can we claim to know?

The use of numbers and statistics to overcome problems can lead to a greater chance of committing what is known as *type one* and *type two* errors:

- *Type one* errors are claims of relationships where none exist. Where the hypothesis is accepted and the null hypothesis is rejected when it should not.
- *Type two* errors are the failure to detect relationships, or the denial that they exist where they do. Where the hypothesis is rejected and the null hypothesis accepted when it should not.

Statistics can only be useful if they are used in a pragmatic and realistic way. There is a difference between what is *statistically* significant and what is *practically* significant, and this difference can work both ways. On the one hand, a difference too small to be statistically different does not mean that it is not enough to be

significant in *real life* and vice versa; a significant statistical difference may not be great enough to produce a noticeable difference in real life.

L) Conclusion

The Fad-ridden Character of Research characterises psychology. Success and advances in Psychology tend not to be built on prior ones. New theories or findings are usually not refuted; they simply linger for varying amounts of time then quietly fade away. This is the real pattern of research in psychology, as opposed to the classical model that it would have us believe it follows. Smith (1980), and Meehl (1978) have written articles that neatly summarise these ideas. Indeed research performed in psychology may be statistically significant, of perfect design and well-worded, but is often trivial and pragmatically worthless.

Psychology uses the laboratory which has fundamental weaknesses that are difficult to overcome; for example the experimenter bias, where beliefs of the researcher affect interpretation of both variables and results. Realising the difficulty of applying theory to social reality, psychologists may choose simply to ignore reality. Hence, an insufficient amount of attention is paid to social context.

Another major weakness of psychology is that university students make up a disproportionate percentage of the subject pool. Indeed many results may be skewed due to the over-representation of students in samples which do not accurately represent 'society' as a whole. Armistead (1974), Boutilier et al (1980), Carlson (1984) and Lynn et al (1984) all summarise these problems.

Chapter Two

Some Major Forms of Psychology

A) Introduction

Psychology's relationship to society is an extremely encompassing topic. Is it meaningful, therefore, to talk about one single, unified discipline? If not, would the separation of psychology into different branches of study change our view of psychology's relationship to society? This is an issue that is not debated enough. Some of the more powerful sub-disciplines are currently being scrutinised using a social-structural analysis, and this is revealing that social-structural/social-historical influences are *not being taken into account.* It has become apparent that through this the interests of the status quo in society are reflected, while the areas of psychology that *do* challenge this state of affairs are usually the *least powerful ones.*

B) Organic and Reductionist Arguments

These arguments maintain that our behaviour is completely determined and explained by *genetics*. Thus, the 'tools' for understanding behaviour lie in the knowledge of the individual building blocks that make up the human.

Reductionism *reduces* behaviour in its effort to control and predict. Simple physiology can never, however, be the final reduction of psychological theory, because it cannot explain either the meaningful or trivial actions of human beings. Science can indeed reduce all human systems into non social entities such as the visual system and neuron's etc, but the problem is that every single function of the human, biological and chemical included, exists in a social life. There is no such thing as a concrete intelligence or visual system without people who perform such activities and they are the *only* ones who give such actions meaning. These actions take place in an enormous and ever-changing society where reduction is a futile task. Human activity is largely social, and this exists independently of biology. In other words, biological rules are not always the most important ones. The reductionist theory, for example, cannot meaningfully explain the often biologically counter-intuitive complexities of life, such as why a person may burn themselves to death in public in protest.

Popular genetic theories in psychology include Sociobiology and Evolutionary Theory. The power of these (if they do exist) seems to decrease as humans increasingly modify the physical environment to suit their needs. For example, Recombinant DNA Technology, the ability to add or remove genes in living cells, can alter the potential of human growth. As a result 'instant' evolution is possible. Sinsheimer (1978 p27) outlines the beliefs of reductionist and organic based theories:

> The basic process of scientific analysis is to fragment
> a phenomena into its components and analyse
> each part and process in isolation, and thereby
> develop an understanding of the subject.

This has worked well for the physical sciences, but for psychology

the focus must be on *all ties of the science to society and culture* and on the impact of scientific knowledge and technological advancement on all human life.

C) Behaviourism

Behaviourism, although not inherently evil, is no way for the future. As it name suggests, this is the study of changing and predicting observable behaviour. Obvious problems arise when applying Behaviourism to humans, and naturally the school of thought has come under fire. An example, if we try to *understand* pain, the observable behaviour available to the researcher is crying, clutching the painful area, etc; but this does not tell us what meant by pain; it does not *describe* pain. The behaviour is not the pain. Likewise, just because A and B learn the same thing does not mean that they *learn it in the same way.*

Behaviourism is a theory of reinforcers and punishments. These 'increase' or 'decrease' the likelihood of a behaviour, but as we will see reinforcement theory is essential circular. A reinforcer only becomes a reinforcer, for example, when the rate of response is increased to get it. Response increment, therefore, can be defined as 'that which follows reward'. Only when behaviour change has *occurred* can one actually specify the reinforcer. Or for example, take the simple idea that we are more likely to do things that we find rewarding. If a person feels guilty and wants to punish him or herself, does that punishment itself become rewarding? If it is, then will they want to *stop* punishing themselves because they want an *unrewarding* experience? A behaviourist may define 'reinforcement' in terms of 'behaviour which reinforces'. This is an obviously circular argument.

What is deemed to be a 'reinforcer' or 'punisher' is often determined by bias, subjectivity, or a desire to prove a hypothesis correct. The increased frequency of a child eating sweets can be attributed to the child's liking for the taste of the reinforcer. An alternative (although here incorrect) explanation could be that the sweets are an unpleasant stimulus and the child eats them quickly to reduce exposure to them. This problem of finding out whether the sweet is a reinforcing or

punishing stimulus could of course easily be resolved by asking the child. But the point is that *observing and measuring behaviour alone cannot with any confidence give meaningful results.* Also, predictive power may be a threat to an individual's sense of autonomy and freedom, and a subject may willingly reject reinforcement. In addition, knowledge of a particular theory allows an individual under observation to avoid being 'correctly' analysed by it. The cognitive power of the human imagination should not be under-estimated.

That which cannot be observed is 'not fit for study' in Behaviourism. This seems both unrealistic and undesirable, and the faith in the infallibility of human observation misplaced. Implicit in the behaviourist ideology is the assumption that humans are 'passive' and 'inert', shaped entirely by external environmental forces, while states of mind, personalities and feelings are ignored. This cleverly removes from sight all the difficult areas which do not give easy answers; through logical positivism it makes the study of the human *perfectly achievable.*

Behaviourism produces experiments where all stimulus factors and response measures are controllable and quantifiable. It is no wonder, then, that the behaviourist will get the answer he or she wants, because everything else is ignored. The only *meaning* the behaviour under scrutiny is allowed to have is that which the experimenter creates for it. This would seem to make behaviourist research rather open to biases and inaccuracies. In fact, the behaviourist experiment is an interesting piece of Psychology in itself, because it shows us many basic assumptions about human nature. Behaviourists attempt to prove what they think is right, and by setting up the conditions ensure they do, rather than finding out what *does* exist. The use of observation to interpret behaviour could lead to endless different explanations (in contrast to the physical sciences) and also requires interpretation of the *social* situation for a meaningful and accurate analysis. To 'remove' observational ambiguity behaviourists have employed the rat or pigeon. In other words, *to investigate humans 'more accurately' behaviourists have decided not to study them!* This is an efficient way of producing an accurate and phenomenally large amount of data, but data with no meaning or relevance to human concerns. The experimental

psychologist seems determined to transform all human actions to non-human ones.

Skinner, of course, claimed never to have read or answered his critics. Instead of 'Radical Behaviourism', perhaps his work could be better summed-up with the label 'The Blind Leading the Blind.' His attitude is that he has better things to do than clear up others 'misunderstandings'. Which, in other words, means that no matter what others do, show, confirm, or argue, he will never be shown to be wrong. Somehow he apparently has a 'better grasp' on the universe and special foresight into the future that does not require him to lower himself to the level of considering the research of others. Skinner's attitude in its glorious narrow-mindedness will, however, ultimately put a seal on his obsolescence.

The human painted by Behaviourism is able to be exploited, duped and degraded in the name of science; a useful tool for the dictators past and present. It is unfortunate the behaviourists have chosen to rediscover the tools of totalitarianism. The belief that they can be assured to be used for good ends, or that punishment can be avoided as Skinner believed, is naive. As Braginsky and Braginsky (1974 p157) rather contemptuously comment about behaviourists; "If their philosophical and ethical prowess is at all similar to their scientific and intellectual processes, the prospects are not pleasant." To illustrate this unpleasant reality Braginsky and Braginsky cite studies such as Bucher and Lovans (1968) use of cattle prods as a treatment on autistic children.

Behaviourism justifies inflicting pain on its patients (in the form of punishments) as being in society's 'best interests'. That such aversion therapy moulds society into what it wants is the ultimate goal. But what behaviourism forgets is that what society 'wants' is never agreed and changes from moment to moment. What society wants is in fact determined by the most powerful and exploiting groups of society. Therefore Behaviourism's vision of achieving the society that everybody will want seems an impossible and an unwise pursuit. But because behaviourism has proved so effective in the past at achieving what the powerful want it is has continued to be used. Behaviourism's power in its relationship to society remains not by solely scientific means, but also by social-political ones.

D) Cognitivism

Cognitive psychology is now mainstream Psychology. The image of the human, cognitive science offers, is even more dehumanised than the behaviourist rat, now humans are in some forms of cognitive theory computers. These theories conceive of the person as the 'computer', as one big information processing machine. Cognitive psychology is a sophisticated reworking of positivism as it still rellies on the same tenants of positivism such as objectivism, reductionism, absolutism and an allegiance to natural science. Cognitive psychology attacks the heart of humanistic consciousness, meaning and internationality.

Cognitive theory shares with behaviourism many of the same problems. As with all descriptive methods the actual *pragmatic use* or understanding that can be gained from such methods is limited. Debates take place, for example over whether the *articular loop* or the *acoustic code* is used in peoples reading, this can tell us little however that help teach reading to people where this research is supposed to be relevant? The model simply *describes* the experimental findings but offers nothing meaningful to the study of reading. What such a theoretical model *is* capable of producing are large sums of money in the forms of research grants.

Cognitive psychology concerns itself with memory especially. Memory models produced by cognitive psychology are produced to fit data because the experiments measure a very narrow band of human experience, not the environmental aspects.

Cognitive psychology believes people respond to how *they* define stimulus situations, not to the objective properties of those stimulus situations. It perceives the mind as being made up of clear and distinct forms. The simplistic assumption underlying cognitive psychology that results, therefore, is that clear and distinct forms of mind produce a clear and distinct understanding of reality. By inventing these simple meanings psychology loses sight of the rich and complex original senses. Yet, the subject exists in a social setting where such a simple mapping of clear and distinct forms of mind and behaviour is not so smooth.

Sampson (1981 p732.) comments about the link between cognition and the social structure:

> ...consciousness and thinking reflect something about the subjects perception and experience, yet they also reflect something about the objective world within that individual works and lives.
>
> ...to understand cognition therefore requires that we grasp both subject and object, if we stop our analysis at the individual subject we participate in the same kind of distortion that he or she reflects, yet if we ignore the subject in favour of the object, we miss the important constituent that the subject's active consciousness contributes.

Cognitive Psychology pays exclusive attention to the *individual's* mental operations. In other words an 'I think' rather than 'we think' discipline develops. Objects are products of individual mental operations and the world is thought to be solely constituted by the individuals thinking and reasoning processes in Cognitive psychology. Cognitive psychology does not, however, describe the full relationship of human mental processes to society. It is lacking in terms of the social 'we think'. It should change to recognise thinking also as the product, socially and intellectually, of *collective* endeavour. Inherent in cognitive thinking is a strong current of *Social Constructionist* thought, in that the objective world is ignored (although not completely denied as in Constructionist thinking.) But the real world does play a very crucial role in beliefs, intentions and opinions. Too much attention has been paid to descriptive hypothetical models of the mind and not enough time has been spent analysing the environment in which the mind is shaped. Psychology should be investigating the *social-systems* in which human behaviour takes place. Indeed cognitive psychology would be balanced if it were to recognise the relationship between the human mind and its society.

An inclusion of the social structural and historical elements into a cognitive analysis would seem crucial, because the individual is not an

active subject acting on a passive world; rather the two interact. The lack of this balance may reflect the historical struggle for ascendancy Cognitive psychology had with Behaviourism. Cognitive psychology emerged the premier paradigm in psychology. From this struggle emerged two polarised arguments. Behaviourism in general believes the individual to be a passive receptacle upon which an active world writes its messages, Cognitivism takes the opposite position of saying the environment is largely passive in determining the individual. Due to the competitive and capitalist nature of science saw both sides take extreme positions. What needed to be developed was an interactionist theory as Sampson (1981 p735.) states:

> ...the objects, situations and environments that enter our interactionist formulations as social and historical products and not as simple derivatives of individual consciousness, or individual behaviour, or occurrences that just somehow happen to be present.

An *interactionist* account bases explanations on the interaction of both society and the individual on each other. This account is far more appropriate for the study of humans who are inseparable from their society, especially in terms of their mental events. Claiming the superiority of mental over material or vice versa is to deny the reality of interaction. The human is only free to exercise mental control over their environment as long as the material conditions allow. The human is restricted in their ability to manipulate their environment by material limitations. That is why any psychology that denies the role of the environment and the social-historical features of that given society is inappropriate, inapplicable to people's lives and simply wrong. For the worker in a low paying job with a family to feed, how much do their mental events determine their objective world? Is it not rather a case of him or her trying to cope with their objective reality, being limited by it, and trying to fight off depression because of it? What must be asked is *who* is psychology serving, the average person, or the powerful elite? Cognitive psychology somehow believes that people are free to engage in mental gymnastics while being unconcerned at the changing physical world. It is not that the individual mental processes do not occur or that

they do not have power over the objective world, but it is, however, an *interactive* process between the individual mind and the society it exists in. By failing to address the material concerns of the real world psychology does not challenge the status quo. For example when a depressed person goes to a psychologist the psychologist will usually address some inner state of mind or poor attitude that the individual will have to change to become 'healthy' again. In this way psychology, as Sampson (1981 p735) states:

> ...serves the existing arrangements of power and domination within a society when people accept a change in there subjective experience as a substitute for changes in their objective reality.

Psychology serves society by deflecting the partial blame which is society's , by trying to 'hoodwink' the population into believing that that it is entirely within the power of the individual to change their objective world through mental improvements. Now of course the individual *can* do that, power within the individual does exist, but change in the material conditions is necessary as well. Without dual change human potentialities are unable to be achieved. The positive and healthy mind is very helpful to improvement; I do not wish to detract from that; but the objective and physical world plays a considerable part in limiting and accelerating progress independently of the individual's mental state.

Theories such as *cognitive dissonance* theory reflect the interactionist values as a basis for treatment of people. Rather the theory of cognitive dissonance requires only an inner change for improvement of mental well being, and the adaptive person someone who can manage that inner change. For example, being able to imagine what is really dull and boring as exciting and fun is seen as an adaptive process by cognitive dissonance theory. This of course parallels the process of false consciousness and the desired work ethic in society. Cognitive dissonance theory encourages those that have abandoned trying to change reality and who instead try to change themselves to fit that reality. This mental manipulation Cognitive Dissonance believes is the way of solving the material strain. But surely it would be better for

people not to deny the social reality of their lives, and learn to adapt to things the way they are by setting realistic improvements. Cognitive Psychology does not have an 'incorrect' observation of how mental events are construed indeed it is very accurate; but by looking at Psychology's ideology we can see how it reinforces the status quo. Psychology spends much of its time and research ingeniously discovering and describing how the mind works, but without offering a critical insight into the *meaning* such work conveys. It merely tells us that the way it has described is the way it is meant to be. But without a meaningful analysis it is impossible to determine between the way things are and the way they are supposed to be.

Cognitive dissonance also relies upon a society that cannot tolerate contradictory contradictions. The thought that people act in inconsistent ways, in other words, does not fit well with the cognitive model of the human.

E) Social Constructionist Theory

To the social constructionist there is no 'real world' or objective reality that exists independently of human symbolic language'. Harre, however, turns the social constructionist argument on its head by pointing out that conversations are in fact a constituent of reality, that these discrete and locatable conversations must have rules of common understanding, reality, because otherwise no one would be able to take part in them. The discourse is maintained by partners sharing the *common* conversation. Without this shared linguistic reality there can be no conversation.

According to the social constructionists experience is conducted through interactions within personal social-historical contexts; consequently no one account can be considered more accurate than any other. The first half of this statement may seem easy to agree with, but the second seems ridiculous; why can't someone's else's view be better than another's? Social constructionists deny that theoretical

descriptions in natural or psychological science are 'linguistically objective', such theorists as, Greenwood (1992), state there is no way of comparing reality with mere descriptions of that reality. It is argued however that just because we are unable to compare and know physical or mental reality does not preclude that world from existing. Such limitations of the human in relation to understanding reality is not evidence against its existence. The social constructionist is confused into thinking that because we cannot recognise the truth *as* the truth that it cannot be discovered. Ironically, this theory is a product of the arrogance it seeks to criticise. For just because humans have no way of determining whether one theory is closer to reality or not for *certain*, does not mean some theories cannot be judged closer to that reality than others. What grounds are there to judge that all theories are 'just as valid' as each other? In suggesting this, the social constructionist is professing to be able to know all worlds of experience equally as well as their own, which is counter-intuitive to the basis of social constructivism that one can only know their own social reality correctly.

Ultimately, Social Constructionist theory is useless as it practically suggests there is little point to anything, so science is supposedly floundering on its own subjective world. Psychology should instead take a realistic and pragmatic approach, realise its difficulties and use its inevitably human decisions to its advantage. Given two competing theories, one *is* closer to reality than the other, even if psychology does not know for sure which one. Taking the one which works best, gives society benefit, while criticising and estimating it against new evidence and theories.

A social constructionist once triumphantly declared to me, "there are no universal rules or universals!". But I, in my humble way, could only point out to him, that he had just in fact stated one. If the best ideas humans can have are imperfect, subjective and opinionated this does not mean that the perfect, objective and neutral reality does not exist; and that we cannot learn about it. Reality is not dependent on humans understanding it accurately for its existence. Social constructionism does give an alternative to empiricism, but whether it is adequate is highly doubtful.

F) Conclusion: A Summary of the four Forms

The diversity of psychological science first brings into question whether it makes sense to talk about 'psychology' as a unified discipline. But commonalities between the major forms of psychology can be found in their relationship with society. These commonalities are that:

1) Psychology has an exclusive focus on the individual.
2) Psychologists rarely confront the fact that their theories are not independent of their position in society.
3) Psychology's theories replicate the status quo for seldom does psychology investigate the influence that society has on its concepts.

Psychology sees society to be a vague and amorphous background that should be disregarded while one fathoms the laws of the human. This is the way psychologists view themselves and their work, as being 'independent' of society by using 'objective' formulations independent of their place and time in society. Psychology needs to create a different relationship with the society it exists in, and to foster conditions that encourage meaningful criticism of its own work. By being self conscious it can help to develop consciousness in others fields. Smith (1976) highlights psychology's lack of collaborative research and knowledge of other fields. Yet ironically psychology worships the physical sciences, but, without really engaging the physical sciences on a meaningful level that could help its science. The emphasis on quantification, one of the few things adopted from science, has encouraged an unthinking psychology. Positivism, with its obsession with observable quantification, has been too dominant in Psychology, not allowing other epistemology's to gain acceptance.

The potential is always there for society to become the victim of science, no matter how unlikely it may seem at the present. What has changed to prevent another holocaust where science, theory and society combine to perform the worst of horrors? Mc Connell (1970 p74) provides perfect example of that potentiality. Although he may not intend oppression he encourages the use of tools that create it:

> No one owns his own personality. Your ego, or individuality, was forced on you by your genetic constitution and by the society into which you were born. You had no say about what kind of personality you acquired, and there's no reason to believe you should have the right to refuse to acquire a new personality if your old one is antisocial.

This chapter is ended on these disturbing views to demonstrate the dangers for individuals in society from psychology, especially if psychology does not recognise the dangers to itself from society. The dangers therefore *will* be realised if psychology does not recognise its full relationship to society.

Chapter Three

The alternatives Psychology ignores

A) Introduction

This chapter discusses the following theories that are not used by Psychology greatly. The reasons their lack of use are not entirely to do with their actual scientific credibility but rather their perceived credibility. They have, however, much to offer psychology. They are based on a recognition of the role, to differing degrees, of the social structure which is summed up in the following points:

1. Human subjectivity is constituted within and through social structures.
2. People are also the products of the social structures they inhabit; they are not merely a set of social roles.
3. People experience unique configurations of social experiences and have an ability to reflect on these experiences.

The lack of the social structural viewpoint leads to inherent dangers such as a lack of a complete self-critical view. The crucial point here is that psychology is extremely critical when it comes to analysing its own work but only in terms of its own methods, not in terms of its meaningful relation to society. The danger is as Sarason (1981, p 56) states,"...that they (psychologists) can only avoid dealing with these issues only at the expense of becoming unwitting victims of them." What are, for example, the implications of rewarding psychologists monetarily in terms of career advancement for publishing journal articles? The danger to scientific credibility is that the reward for the achievement becomes more important than achievement itself. This argument may seem weak if the conclusion has been reached that it does not matter as long as they are motivated to do research'. But psychology has a duty to be the best science it can and as a science it must be capable of thinking with a depth and breadth which includes societal relationships.

The reason for the incompatibility of psychology to study the more pressing problems of society lies in psychology's methods. Coons (1990, p 140) agrees:"...we have assumed that if a subject is not amenable, to a nomothetic, hypothetic-deductive method, it has no place in the science of psychology". To adopt a rigorous method and structure is vital for developing a useful science. But one which *discounts* alternative and conflicting methods and theories without examining them critically is dangerous. A science which only accepts a single paradigm is non-progressive. Breakthroughs and discoveries of the future may require alternative methods and theories working in combination with the dominant ones.

Handy (1987, p 161) re-states again the crucial importance of a social structural basis to criticism, as she reviews criticism of the field:

> ...one of the most common themes they raise is the discipline's failure to deal with the historical and political contexts of human behaviour.

This reluctance to incorporate human social creations in criticism or analysis even extends to the terminology of psychology. The term *subject* by its nature transforms people into objects. *"Object"* also gives the impression the experiment is isolated from real life. Social structural is seen as a 'Sociological concern'. Psychologists consider Psychology as a profession "more highly esteemed" than Sociology. Consequently there is a reluctance to focus upon topics perceived as 'Sociological' in order to retain professional identity. Not that that is necessarily a bad thing, but if the repercussion is that social structural influence is ignored it then *is a* bad thing.

The western view of a "benign social order" which provides adequate opportunities for people to develop their potential has strongly influenced psychology. Human behaviour is explained by internal, personal characteristics rather than by situations or relationships. Failures are therefore attributable to *personal* shortcomings. The need for a comprehensive understanding and intervention on the social structural level is seen as redundant. Stemming from the Industrial Revolution, this individualist attitude was extremely effective in maintaining capitalism. Whether this is a good or bad thing for society must be examined carefully. Such an examination is naturally part of psychology's role, indeed it is duty bound to such a role. But in the final analysis psychology has not performed such a useful task. It is condemned to a lack of any meaningful comment or acknowledgment of the issues of social structure.

B) Ideology

The term 'ideology' refers to the values, interests and underlying social practices that a particular emphasis serves. Psychology's ideology, tends to be idealistic, whereas others, such as sociology's, are usually materialist. Materialistic conceptions view society as one

section of society exploiting another. Ideology is seen by materialist schools of thought as a tool to spread false consciousness amongst the exploited to keep them from fighting against such exploitation.

An ideology has several components outlined by Ryan (1971, p 10):

> first their is the belief system itself, the way of looking at the world, the set of ideas. Second there is the systematic distortion of reality reflected in those ideas. Third is the condition that the distortion must not be a conscious, intentional process. Though they are not intentional, the ideas must serve a specific function, maintaining the status quo in the interest of a specific group.

C) A Definition and Explanation of Social Structure

> While scholarship and science have a logic and momentum of their own, because of ominous, internal contradictions and the relationship between data and hypotheses, they cannot be abstracted from the social context. Hall (1983, p 86)

On a micro level a psychologist's relationship to society is crucial to the experimental and theoretical outcome. Psychologists, like all others, are *products* of their own society and ignoring this does not mean that its influence is removed. To remove social-structural influences specific to each psychologist is impossible and undesirable. The analogy of the art work being made up of figure and background is an appropriate metaphor for the society and the individual. Psychology tends to see the figure as it were as all important without paying much attention to the background. The background is seen as 'noise' to be ignored. A more realistic and effective view would be to see the background and figure as inseparable. As the background still affects the way you see the figure even if you are looking at the figure and vice versa. Spence (1985, p 8) comments on this relationship: "Psychologists are the products of their society and time, and their construction of social reality is shaped by the world view and values

and culture they were reared in." To deny such values in research is ridiculous and self-defeating, because to deny value, is to deny meaning. All psychological judgements are value-based and subject to their own particular social historical experiences. Terms such as "rigidity", for example, may describe a "flaw" in the cognition, of one culture, whereas in another culture the behaviour may be described as stability.

Psychology's failure to have an adequate awareness of fundamental social-structural forces results in difficulties in identification of relevant causal factors in the problems of the individuals it serves.

Social-structural forces are not amenable to the present hypothetical deductive method as they are *unobservable* and cannot be found in any given individual in their entirety; even though the hypothetico deductive claims it deals with the unobserved. They are real without having an existence located within the individual, and most importantly their effects are real. The physical sciences justify studying such phenomena as black holes, magnetism and electrons by the same standard. Psychology has not increased its width of investigation to such areas class, which are unobservable, and still does not use a social structural analysis. By ignoring such a crucial influence, psychology will not see problems in their proper depth. Bramel and Friend's (1981, p 871) comment on the analysis of Psychology of Mayo's (1933) study of the industrial work at the Harthorne factory illustrates Psychology's methodological blind eye:

> ...conflict between workers and management is always due to something other than the basic antagonism of interests in the exploitative capitalist relations of production.

In this study the primary causal agents were class-based but Mayo glossed over the antagonism-indeed he replaced the disruptive elements of the study where possible to ensure the right result. By ignoring other valid, indeed more appropriate, social structural forms of analysis psychology produces a biased and an incomplete understanding of human behaviour.

Psychology must not only learn to recognise social-structural forces; it must also learn to combat the threats these forces pose to science. Its existence as a science is largely determined by the funding and legal support from the government. Most crucially psychology must come up with arguments to preserve itself as a science, receiving the profits of free-market economy, while at the same time preserving its independence from this ideology. If its supply of funds, is the government, becomes free-market oriented, psychology's future will be one of trying to fend off arguments as to why its funding should be cut. These economic attacks require an economic defence.

Threats from free-market ideology which directly work on those that allocate funds to reduce the funding for psychology include:

- Subsidisation of social sciences is wrong because it stops the market place from determining the value of research.
- Spending money on psychology is a poor return when other groups such as national security or hospitals are powerful vote getters. That individual and family concerns are none of the government's business; indeed they are an attack on the rights of the individual'.

It does not matter how ridiculous such ideological demands are, they are real, prevalent and dangerous. Psychology faces the danger of being rationally appraised as a poor fiscal and political return. Hiding in universities will no longer save it, for the free market ideology has also been forced on the university. Once in place such ideology is very hard to remove. Psychology must be prepared to dig in and get the best out of the system it can.

The ridicule of social science on a political level is exacerbated by the Press. In the minds of the public, psychology already has an image of being silly and trivial. People will therefore selectively pay attention to images and stories which confirm their misconceptions. The public and political worlds are where psychology requires some fairly active and radical image surgery. Psychology's relationship with society must be confronted if it is to maintain political, social and ultimately scientific credibility. Without such political and public support, the potential reality of a strong psychological science will be lost. Psychology is not advertised by ground-breaking discoveries or contributions to peoples

welfare as other sciences. News seems to be instead characterised by sex scandals! It is as though psychology enjoys the fact that the public knows little about it or the people in it; a sort of 'mysterious science'. Perhaps the motivation for such aloofness is that, in being deliberately coy, psychology does not have to reveal what type of science it really is. This distant attitude, however, does little for public understanding and subsequently its ability to help the public or get public funding. An example is supplied to highlight the previous points.

In 1975 a rather inventive educational package was in place in American schools entitled "Man a Course of Study" or Macos. Besides the sexist title, it was a rare example of psychology preparing a *useful* application to a wide audience. Macos used cooperation-operation in trying to get school children to improve relations between people, with critical thinking as its learning mechanism. Unfortunately a Senator decided, in a wave of anti-communist sentiment, that this was a communist-inspired plot to brainwash children and demanded it be scrapped. Cooperation and critical thinking were not values cherished by the Capitalist system, nor did they fit with the American ideal of the individual as paramount, they were seen as synonymous with communism. The dominant values inhibited by the public and encouraged by the institutions were that only through competition could society become strong. In due course an investigation was held, the course removed, those responsible for employing these social scientists were fired and publicly humiliated. A politician wants votes, the media want a selling story and the relationship between political ideology and psychology is demonstrated to the public's detriment.

Even if psychology should remain value free it cannot. Thus developing policies to utilise value would help psychology. The argument against adding subjective value to its work is that if psychology sticks its neck out, like the people behind Macos, it will get it bitten off. But until psychology becomes helpful and learns to fight, it is worse than useless for the common good; it is against the common good. Psychology must learn to carry the fight outside of the abstracted world of scientific theory bashing (on topics which amount to meaningless psycho-babble) to a pragmatic real-world footing. Before psychology attempts to become relevant as a discipline again, separated from agendas other than its own, psychology has to learn to stand on

two feet on a materialistic footing. That means enlisting political, social and economic security and support. Psychology must become a political and social animal to avoid being at the beck and call of other social, political and economic animals. Psychology at best will do nothing on its present course, because it is too scared to stick its head into the real world, let alone do anything about it.

Manicas's Definition of Social Structure

To judge the importance of social structure there must be an understanding of what exactly social structure is. Peter Manicas (1980) offers a admirable definition of social structure. The following points are made by Manicas to outline the notion of social structure:

1. Social structures are the products of interactions of humans. They are social products themselves which are distinct from 'natural' structures in that they are theoretically at least meant to have a concrete independence from the social world.
2. A person does not have to fully grasp what a social structure is for it to have an impact on them.
3. Social structures only exist in virtue of the activities which constitute them; they are not independent but interdependent.
4. Social structures are real in that they have real effects, ie. they constrain, limit and enable the actions of individuals.
5. Social structures pre-exist the individual.
6. 'Structuration', is what happens in the reproduction of social structures.
7. Social structures are constituted by human action and yet at the same time influence this human action.
8. Social structure, it is argued, is not the same as human action, just as people and society are two different things.
9. Different philosophies identify different roles that social structures perform, these include fulfilling, developing and

helping, through to oppressing, exploiting, and alienating humans.

Bhasker (1978, p 16), provides an example, of how a social structural analysis may interpret a situation when he claims:

> ...people do not marry to reproduce the nuclear family, or work to reproduce the capitalist economy. But it is nevertheless the unintended consequence of, as it is also a necessary condition for, their activity.

Manicas believes that the primary way to understand social structures is as causes. Manicas believes that social structures have three causal aspects to them:

1. Meaning, which makes shared communication possible.
2. Moral, which includes norms, rules, various modes of legitimation. eg, Social Control.
3. Power, which is the ability, to act, to do and influence others.

As has been mentioned before social structures are seen as potentially doing one of two fundamental things to society. One, social structures help bring about consensus and equilibrium or two, they are seen as bringing about disequilibrium and instability. As we shall see, the following theories make much use of social structure to explain human action but do not always agree on its role. Psychology has traditionally ignored the social structural in its analyses but how subtle reinforces the view that social structures are inherently good and functional for human society.

The Relevance of the Social Structural to Psychology: An Example

In Sennet and Cobbs (1973) book, *The Hidden Injuries of Class*, the influence of the social structural is demonstrated on the individual. Without such a sociological analysis such social influences may be construed as being entirely different.

Sennet and Cobb believed that the working class were the greatest supporters of the social system and the harshest on themselves. This support comes even though they are relatively disadvantaged economically in society. The reason that they have more reason to be conservative on social economic issues than higher class people is that the working class are hanging by a thread economically and so criticism can be disastrous.

Psychologically, the working class Sennet and Cobb found, thought that if they fail they thought it was their own fault. This belief is reinforced by Psychology justifying social class inequalities as being the result of natural biological differences. But such biologically based arguments such as Social Darwinism, do not apply in the social world as an accurate description of who does well. The social race is *inherently unfair* and loaded from birth, it is not simply a case of 'survival of the fittest'. An example of how this race is loaded from birth is provided by Sennet and Cobb(1973, p82). They interviewed and observed classrooms in America, and one teacher said to them when questioned why she gave preferential treatment to two fairer skinned children:

> Its not true of other children that they generally have less potential. Its a question of not developing their ability like Fred and Vincent. I know your right, I tend to encourage them more despite myself, but its obvious to me these little boys are going to make something of themselves.

I wonder why? Psychology itself has described how attribution's learnt at school provide a different schooling experience for boys and girls, girls locating within themselves the reason for their failures, whereas boys believe that it is the circumstances. The other children in the aforementioned example obviously will learn that their performances will not be greeted with the same enthusiasm reserved for Fred and Vincent. The other children lose the expectation the

school will help them and they believe instead that life will begin when they get a job. This is precisely what the system and status quo requires to reproduce the social machinery to ensure its continuation. The requirement the social system needs is a willing and eager work force to exploit.

Teachers act on their expectations of what the children will become, make these expectations become reality. Children feel responsible for a situation they did not create. In school some do poorly and others do badly. Is this fair? The children didn't create the situation. Why should they be changed? Who gave society the right to make them enter this maker and breaker of personality and achievement? The intentions of society may be good but this is not a justification for failure.

Sennet and Cobb believe the lower class pay a large price not only in monetary inequality but in the hidden injuries of class. Dissatisfaction, resentment and an under valuing of themselves in general are such injuries. They justify a hard oppressed and exploited life by believing it is all for their children. Unfortunately this usually is a forlorn hope as there can only be, for example, 90 workers 10 supervisors and one manager in a factory. Accordingly it does not matter how hard they work the proportion of workers to supervisors must remain the same for the profit of that business to be maintained. Their children have less chance compared to a managers child, of getting that one managerial position. Sennet and Cobb believe a conflict between freedom and self respect is set up in which to maintain the life chance, largely illusory, for their children, they sacrifice both their freedom and self respect. This injured dignity serves a purpose in maintaining the legitimacy of a reward system: 'If you work very hard you'll get what you want, to be better off than your parents'. And if the impossible dream is reached then what? the parent is cut off from the child because in becoming a Professional, for example, they don't talk like their parents, act like their parents and are not interested in the same things as their parents. The parent who needed that dream of freedom is cut off from those that achieve it.

The system due the logic of capitalism cannot deliver on its promises. Yet the working class feels responsible for what has happened in their lives. Psychology generates theories of individualism to remove its guilt for not addressing real and fundamental issues such as this in

society. Individualism, as shall be discussed later, serves to avoid a whole range of troubling and irresolvable conflicts which are partly psychology's responsibility. Psychology appears to be fair and impartial and this is used as a rationale for the harmful individualism.

The Summary of Social Structural Influence and its Importance

In conclusion, the individual differences can be quite feasibly measured as long as it is recognised that individuality stems from the social context as well as within the individuals. The analysis of people is therefore one of a comparison of socially produced individuals rather than a comparison of asocial, purely biological entities. An example of the value and appropriateness of the social structural explanation is provided by Henriques et al (1984). They studied the premature sexual maturation in Puerto Rican children. Several hundred female children experienced accelerated growth which leads to full sexual maturity in four year olds. The reason is the oestrogen supplements in the feed of the chickens which constitute a staple food for the Puerto Ricans. This has resulted in confused social relationships in which the citizens are not sure how to cope. It is not the biological changes which led to such confusion, but the realisation that social conventions based on normal biological patterns are inappropriate. Similarly, while sexual changes are clearly biological the underlying cause is politico-economic. Consequently the solution is politico-economic, removing the oestrogen supplement will require a political and social solution.

It is important to remember society and its members are not independent of each other, that there is two sides to the story. Just as society influences the individual so the individual is able to influence that society. Individuals should be seen as knowledgable, creating and sustaining society and themselves through purposeful and reflexive actions. For psychology an acceptance of the role of social structure means a need to look beyond the direct effects of traditional research to a more comprehensive analysis. In particular the influence of social structure to constrain and produce the reality of peoples lives. Only by doing this will psychology hope to control the social cultural environment within which it performs science. It is not that psychology

does not have a strong relationship to society but that it has the wrong one.

D) Marx

The Marxist model is one of the more famous models of society which uses a social structural approach. Marxist theory is a reaction against the more traditional view of society as being run on cooperation and good will. It believes that society is instead exploiting and alienating and therefore a society of conflict. It is important not to be confused into thinking that this conflict is what the Marxists want, but rather it is how they see society as it exists. Marxists do not view the state as a cooperative institution which promotes the general welfare and protects people's rights. The state and other institutions are seen as being controlled by the ruling class and therefore the ruling classes benefit. Psychology as one of those institutions is seen as a protector of the status quo where the ruling class is maintained at the expense of the majority. That is the reason why Marxist's believe Psychology does not address the important issues of today's society. Marxist psychology would not be value free and unbiased. Marxists believe that it is essential to have value and bias in psychology to identify the needs of the majority over the ruling classes and to be socially relevant for that majority. For Marxists one of the greatest actions psychology could perform for society, for the Marxist's, is to increase people's consciousness, their critical insights and awareness, to teach people not to just accept things the way they are but to struggle to actively change things. The relationship between psychology and society would become *revolutionary* rather than *confirmatory and replicating* of the existing inequalities. However, psychology is not revolutionary and the reality it describes is defined by the ruling classes of the capitalist society, not independently by scientific considerations.

Marxist theory is one of economic determinism, that is, the fundamental economic relations of society are the basis of all things in that society. Psychological knowledge in this present relationship between society and Psychology serves the status quo as Marxist, and Neo Marxist perspective's identify. In this way psychology influences

society and society influences it. That is, the role of truths is established by psychology as a controlling and numbing feature upon the individual. Industrial and Organisational psychology is the area which deals mostly with the economics in psychology, but this sub-branch of psychology is probably the area receiving the greatest criticism from Marxists. Implicit in Industrial Organisational psychology is the belief that economic activities are in the interests of the whole, that the workers and bosses are not two antagonistic parts, of which one must exploit the other, but that they share the same aims and work for a common good. It is in light of these implausible idealistic attitudes that sociological features of analysis such as Marxian False consciousness and Marcusian ideas of one dimensionality should become part of psychological analysis. The idea that psychologists have somehow avoided capitalistic influences is delusional. Marxist analysis investigates such influences in detail; therefore an understanding of their economic analysis is worthwhile.

Psychology has taken the viewpoint of the dominant capitalist system and in so doing it has alienated itself from using Marxist analysis. The incompatibility of the Marxist view with western capitalism leads science to view the Marxist theory's with disdain and hostility. Viewing Marxist theory with disdain and hostility is no crime and indeed several parts of it, in particular the utopian idealist viewpoints of the inevitability of societal development, I view with disdain and hostility myself. It is crime in psychology's case, however, because it views Marx with hostility and disdain not from a scientific viewpoint but from a political viewpoint. Indeed Little (1986), showed how Marx used an entirely scientific method in his analysis of history, and how Marx in fact criticised other analyses for their lack of a grasp of the hard cold realities of life.

Marx also showed how proof and justification is naturally different between the physical and the social sciences. This difference in justification arises from the problem that the social sciences cannot make use of experimental replication as accurately as the natural sciences. While Marx's theory is often criticised as being unscientific for using unobservables, most of the physical sciences also use unobservables to explain observables, e.g., atomic structure and genetic theory. Furthermore limiting investigation to the purely observable

commits the cardinal sin of blocking inquiry. Marx went one step further than physical science in his use of unobservables, he not only tried to describe them but tried to give them meaning as well. Marx criticised natural science for merely describing the unobservable and the observable. Indeed, if science is conceptualised as different theories about facts, which are no more than informed opinion anyway, Marxist analysis should be justified as scientific. It is of course debatable how good a theory his is but it *is* a scientific analysis.

Class and Stratification

The following points outline the key concepts of class and stratification which Marx used extensively.

- Marx's theories rest on the premise that all societies are class societies.
- Economic reward, political powers and social prestige come from these classes.
- The classes are created in the way in which production is organised.
- As soon as humans are able to produce more than they need to survive it is possible for classes to emerge.
- One class, the majority, produces the wealth of another, the minority.
- The minority class seizes the surplus goods produced; therefore, the minority exploits the majority and gains power and wealth.
- This produces a class struggle which characterises all societies.
- All aspects of society reflect and justify basic class structure.
- The superstructure of ideas and institutions reproduces the economic base.
- Revolution occurs when the material conditions hold back economic development, and/or, people are aware of the opposed interests inherent in a class society. A new ruling class emerges with a new means of organising the means of production which is more efficient than the previous means of production.

That is the course followed by history of human society as Marx describes it, it is a history of class struggle.

Materialism

Marx believed that the only real analysis was a material one; that the 'superstructure' and 'base' which make up society are reflections of the economic, material world. Thus, a Marxist viewpoint of psychology should include a materialist analysis. Although one may argue that materialism does not determine all aspects of society, it is, however, undoubtably responsible for a significant amount. Marx's primary unit of analysis is the commodity, which is something which is bought and sold for value and can be observed. From this empirical base he sought to explain the history and relations surrounding commodities. The exchange of commodities, as Marx described, were organised into the *Mode of production.*

Mode of Production.

The following points outline the mode of production.

- There are two important classes, the Bourgeoisie, the owners of the means of production, and the Proletariat the workers in that means of production.
- The difference between the value of labour and the value of product produced by the proletariat is *surplus value.* The surplus value is a measure of the exploitation of the proletariat because the bourgeoisie seizes the surplus value for their own from the work of the proletariat.
- Wages remain at this level of exploitation unless forced up by scarcity of workers, or lowered due to competition.
- The crucial difference between the classes is ownership of the means of production
- The proletariat must to survive work at any price, whereas the bourgeoisie can employ or sack whoever they want.
- The bourgeoisie has no choice in whether to exploit the proletariat. For to remain competitive against opposition bourgeoisie, and to remain bourgeoisie, they must produce surplus wealth.

Psychology is in a society where the deep-seated structural goal of profit outweighs all others. But yet psychology's view is that economic

realities are responsible for nothing, when clearly their importance in the role of motivation and self image and almost all areas of the human condition are crucial. Marx comments on the importance of the material reality to analyse people:

> ...the social structure and the state are continually evolving out of the life-process of definite individuals, but individuals not as they may appear in their own or other peoples imagination, but as they really are, ie' as they are effective, produce materially, and are active under definite material limits, presuppositions and conditions independent of their will. Marx (1993, p 103).

> The materialist view of consciousness, which holds that primary elements of society and its actors are the social relations of production, rather than any innate capacities. Brown (1984, p 43).

Science, Marx believed, like all aspects of the superstructure, is not independent of the conditions of the material world. Lack of independence from the funding source, however, was probably hard to see in the post World War two years when funding was relatively greater and so had few restraining aspects to it. In today's competitive academic world the ties must surely be more apparent and are discussed by Marx and page 88 of this thesis:

> The production of ideas, conceptions, of consciousness, is at first directly interwoven with the material activity and the material intercourse. Marx (1993, p 103)

> ...the class which is the ruling material force of society, is at the same time the ruling intellectual force. Marx (1993, p 104)

> The class which has the means of material production at its disposal, has control at the same time over the means of mental production. Marx (1993, p 104)

Thus those without access to control or ownership, which were one in the same for Marx, had their ideas subjected to those that did. Namely the ruling class makes room for thinkers who Marx (1993, p 105) said; "...make perfecting of the illusion of the class about itself its chief source of livelihood." The rest of society's attitude to this process of indoctrination becomes more and more passive for Marx, because they have less and less time to make up illusions and ideas about themselves, due to the pressures to sell their labour. The resulting class differences produce an economic determinism whose influence on people's actions are all persuasive.

Class effects are investigated rarely by psychology. Marx used a realist justification for class being a real entity. This was that *class is real by its effects*. Often in physical science unobservable are credited as being real only by the real effects they have. Magnetic fields, electrons and blackholes, for example, are proven to be real by observing their effects. Therefore arguing that class is non scientific because it cannot be observed would also remove many commonly used scientific postulates. So in fact Marx was quite clearly justified in using class as a scientific postulate considering the amount of evidence available by measuring the effects of class on observables.

The value of Marxist theory to psychology could be great, but unfortunately many aspects of the human experience of life which Marxist theory discusses are ignored by psychology. Marx's interpretation of the meaning of such influences on the human life may be wrong. But debate over the pivotal concepts he has identified, or even over whether they exist is lacking in psychology, to its detriment. Marxist theory provides an excellent explanation through the mode of production of inequality and the attached psychological influences and effects this has using social and historical means. There is almost a total lack of a social and historical analysis of psychological problems people face. Marxist theory at least, at the very least, attempts to explain and describe meaninfully such relevant psychological processes and effects. Not only is a Marxist analysis a powerful explanation, but it provides a causal explanation which is sadly lacking in descriptive psychological theory.

False Consciousness

To be socialised means, for Marx, that one has absorbed predetermined conceptions of the way things are and ought to be. One may resist the process, but to occupy a certain position such as a psychologist, you need to transverse successfully the rites of passage and acceptance. For most people the process of socialisation is so successful that they do not question, ie. have no self *consciousness* about the forces that shaped and continue to shape them. In psychology these questions are strenuously avoided so psychologists can remain paragons of the scientific community. For to raise them is inappropriate and commits one to the oddball category. Koch (1981, p 258), sums up false consciousness and the degree of influence it has had when he states: "our gift for the mismanagement of our minds is perhaps the genius of our race!" Psychology's defence of its unthinking stance is that it does not have to question the social structural forces on itself because those forces have no effect on psychology. No effect, because psychology is value free and neutral, divorced forever from the social world if the correct methodology is followed. This defence is flawed because firstly this goal is undesirable and secondly it is impossible! Psychology must instead learn to deal with the relationship of the individual to society, which is deserving of serious study. Psychology tries to study the individual in isolation, this is naive as you cannot at any instance have one with out the other. Even Social psychology which claims to investigate the relationship between society and the individual in fact does not. Social psychology instead examines the here and now influences of isolated variables on the individual and ignores any macro or social structural influences.

Society has built up an image of science and those who made, into a false image, a false consciousness fed to the public. It is an image of a world where science is the most appropriate model to describe and solve problems in it. Humphy (1982, p104) gives his opinion of the famous mathematician Dodgson as an example of where societal claims of the greatness of science are debatable: "Charles Dodgson the mathematician shared his pen amicably enough with Lewis Carroll the inventor of Wonderland but the split is neither so comfortable nor so complete." And of course interesting little bits of evidence and trivia of those most famous minds abound, but naturally are not taught to be associated with the holy scientific minds of the past and present.

Examples such as Newton having a complete Topographical map of hell he had so "brilliantly" derived from information from the book of revelation. Or the fact Pythagoras did not invent pythagoras's theorem; it was around before him, and he just used it more, or the fact you can't see the great wall of china from the moon with your naked eye, a piece of cold war hangover propaganda. And, no Pluto is not the furthermost planet from the sun and will not be so while I am alive. This is not in the publics general assessment of famous people and facts because it would attack the reassuring and carefully crafted image of science.

Marxist conceptions of Psychology would describe psychology's relationship to society as being one of denying power from the average person. Knowledge is a form of power in Marxist analysis, as the ways in which problems are conceptualised influences the actions towards them. Society from a Marxist viewpoint, gives psychology influence to further the oppression of the working class by justifying capitalist society and values. Psychologists are then able to benefit from this exploitation as non owners but partial controller's of the means of production. psychologist's relationship to society for Marxists is therefore one where psychology haves and others do not.

Marxism states that capitalism is full of inherent contradictions and Psychology is no exception to this. In particular it appears to help people, but it can only do this through becoming an institution which restricts and alienates people. That is all interactions between psychologist and patient are power relations, where people seeing a psychologist are subservient. The psychologist exploits their patient by charging a fee which creates surplus value. The psychologist being simultaneously exploited themselves if paid by an institution, because they are creating surplus value that goes to that institution. These points show that psychologists do not work in a scientific vacuum, they must compete with others for a scare economic resource.

Psychology is linked to the larger society by the function of replicating class structures. Capitalism denies lower class students access to the resources of psychology through fees and lack of encouragement. If it seems that the education system which Psychology is part of is fair and gives all an equal chance, which in turn justifies the existing social classes and inequalities. Psychology's relationship to society is as part of the larger education system which favours those

who are already privileged, and puts further obstacles in the path of those who are disadvantaged. This runs directly against the myth that schools stimulate talent without regard for ascribed characteristics such as class or gender. Because as Marxist's argue cognitive differences only offer a partial explanation of differences of achievement in education and intelligence. Differentiation between individuals, for Marxist theory is largely a function of class structure, of learned abilities and attitude. For example, IQ tests reflect the ruling class ideas for Marxists, and are a tool for dividing along class lines. Naturally those that do well in them are those from the ruling classes who have had the best opportunity to master them.

Alienation

Another pivotal concept of human motivation which seems to be completely ignored by psychology is the Marxist concept of alienation. Alienation is the key term which links the political-social-economic world to the personality. It is the process identified by Marx of the individual not feeling part of society, having lost interest and being remote and apathetic, all due to the oppressive relationship of the human to production. The basis for alienation is as follows: humans have the capability to control nature by creative activity and humans have the ability to work out a conception of what they want and put this into practice. Consequently work can be an expression of human intellect and creative capacity, unless it is alienated by either being merely concerned with survival, or organised in such a way that it is debased and made into a burden. Such alienation for Marx was the barrier to realising individual human potential. Marx believed for work to be an expression and a means to realise human capabilities there needed to be a) abundance of basic needs, b) the abolition of work divided into meaningless tasks, and c) the removal of economic domination and exploitation. Capitalism is for Marx the most efficient system yet for creating alienation. Under capitalism the human ability to work and create is now a commodity forced to be sold for the cheapest price. The harder people work the more they are exploited in terms of creating surplus value for others. Combined with false consciousness these terms would seem to be vital for any discipline that wants to understand humans and their relationship to society. Koch

(1981, p 260) has also 'rediscovered' the concept of alienation. He writes:

> Objects of knowledge become caricatures, if not faceless, and thus they lose reality. The world of any given of it, is not felt fully or passionately and is perceived as devoid of objective value.

Psychology's role as an institution labels those not contributing to the capitalist system as deviant. That those not entering and not producing economic benefit for society are seen as misfits whose behaviour must be corrected. For example, and as will be discussed later in a consideration of individualism, the poor are seen as being unable to delay gratification or are incapable of managing their own affairs. This is used as an explanation of why the poor are poor. But if real, such factors are the result of being poor, not the cause. Alienation is a concept and aspect of the human psyche that needs to be investigated by psychology.

Conclusion

The key points of criticism of psychology by the Marxists are as follows:

1. Psychology uses a narrow empiricism which does little to investigate the social whole.
2. Psychology has an underlying acceptance of the status quo.
3. The individual, not the system, is exclusively held responsible for the positive and negative things that happen to them.
4. The determination of mental illness is based upon the ruling class ideas and reflects their interests. For example who is crazier the schizophrenic who believes he or she has a nuclear bomb inside his head, or the well adjusted military person who makes nuclear bombs, works around them everyday and who has the capability of dropping that bomb?
5. One of the motivations behind working in a mental illness field is to make money, gain power and prestige through institutional badges of merit, not only to cure mental illness.

6. Psychology does not critique itself in a meaningful way; it lacks a real world consciousness. As such Psychological theories are a-historical.

Criticism of psychology must be tempered by the fact that while the institution of psychology works for the status quo, mental illness is still very real whether socially constructed or genetically determined. The importance of Marxist analysis is understanding the social functions of science. Marx's theories have been ignored by psychology not because they are wrong in some of their predictions, but because in their explanation of human actions and thoughts they attempt to give meaning based on an economic determinism that psychology is not comfortable with. This meaningful analysis, whether it is incorrect or correct, is not the point; the point *is* that psychology does not even debate Marx's theories. Not only Marx's theories but any such socially relevant topics, because they are seen as inappropriate.

Finally, Marx's theories were far from complete with only one of his intended seven volumes, *Capital*, ever finished. So instead of a broad theory, his readers have only received one area in depth. Volumes on international trade, the state and politics for example were never completed before Marx died, so it is no wonder that Marxists place so much emphasis on economic theory. It is interesting to think what would have been thought of Marx and his theories if they had been completed, especially when one considers the main criticism of Marx is that it is crude economic determinism and has a lack of flexibility.

E) Marcuse

> A comfortable, smooth, reasonable, democratic unfreedom prevails in advanced industrial civilisation, a token of technical progress. Marcuse (1973, p 337)

Marcuse, in his definitive book One Dimensional Man (1964), argues that science and technology, of which Psychology is part, is seen as the embodiment of all reason, hence all opposition is seen as unrealistic and irrational. Psychology plays an important part in labelling such

resistance as deficient or deviant in this process. This loss of negativity and the power of critical thinking is crucial for Marcuse. Because science, psychology included, is in consequence able to pursue scientific progress without anyone raising the question of whether it should. As Leo Marx (1973 p 26) asserts: "The American belief in the inherently beneficial character of science no longer can be taken for granted."

The 'mind set' which replicates the social order of scientific rationalism is labelled by Marcuse as One Dimensionality. One dimensional society is sustained by positivism which has triumphed over negativism. Psychology, as Marcusian analysis believes, is an agent of *positivism* which is the arch rival of *negativism.* Negative thought for Marcuse was determinant, a process where truth is revealed. Positivism is the opposite, hiding the truth in an unrealistic cloak. Positivism however is seemingly validated by increasing technology, seen by the one dimensional individual as harmony between theory, practice and truth. But the one dimensional society does not question these developments, caring little for the consequences. Therefore, scientific progress for Marcuse can control and enslave both the individual and the society bringing horrible consequences in its name, for example the atomic bomb or the death penalty. Yet nobody stops to think if progress is good or bad, or consider its application in the real world. This is the nature of psychology's relationship to society for Marcuse, that of a larger technocratic tyranny. An example of that technocratic tyranny is the unprecedented ability of industry to produce new technologies at such a pace and with such an impact as to make them impossible to monitor. Consequences in such a fast paced progress cannot be seen ahead of time and the past methods of science cannot be relied upon to understand or control such changes. The rationalism of today's society propels science to discover the irresistible new technologies without pausing to stop to think whether they should.

New Forms of Control

Marcuse warned of the dangers of science to our basic human rights, and although rationalism appeared to enhance them, this is not always

so. What could be more rational and dangerous to humans rights than the suppression of individuality in the mechanisation of socially necessary but painful performances. In essence, the regulation of competition amongst unequally equipped individuals in the economy is a freedom that is not a freedom. As capitalist society has matured, it has seemingly removed the need for traditional rights and liberties. As Marcuse (1973, p 337) writes: "The rights and liberties which were such vital factors in the origins and earlier stages of industrial society, yield to a higher stage of this society: they are losing their traditional rationale and content." According to Marcuse freedom of thought, speech and enterprise were incorporated into the replacement of the obsolete intellectual and material culture by a more rational one due to its greater productive capability. Now when advanced western society delivers what people want, it seems irrational to embellish such rights at the expense of potential benefits gained without them. As a result, the greater the capabilities of society, the greater the reasons for removing individual rights, so as to be able to continue these technological progressions. Consequently, the relative success of such societies allows them to rationally demand acceptance of its principles and institutions and reduce the promotion of alternatives which go against the status quo. When non-conformity is squashed in a bid to get a rising standard of living, such trampling of human rights seems justified because the person who is non-conforming is socially useless and irrational. This is especially so when they risk the tangible economic and political advantages and threaten the smooth running of the status quo.

Quite simply Marcuse's materialism is an analysis of capitalist modern society when things are good, ie., the psychology and motivations behind people's thoughts and actions when things are materially advantageous. In contrast, Marx provides an explanation of peoples motivations, thoughts and actions when conditions are materially more grim. Likewise, Marx identifies false consciousness in people whose material position is weak, while Marcuse identifies the false consciousness in people whose material conditions are more favourable. Both show how false consciousness is an active process which effects humans thought and behaviour in both boom and bust

economic periods. The two differing commentaries on false consciousness are not antagonistic but complementary.

Freedom

Freedom is one of the most fundamental rights an individual should have, but what that entails changes over time. Economic freedom at the turn of the century was the ability to enter the marketplace as the owner of ones labour. But now to be economically free is to be free from the economy and not have to enter that marketplace. Likewise, political freedom is the freedom from politics over which one has no control. Intellectual freedom means the restoration of intellectual thought and breaking free from public opinion and indoctrination. The freedom of enterprise is not altogether a blessing, it is the right to work or to starve. If an individual had no longer to prove themselves on the market as a free economic subject, the disappearance of this freedom would be one of humankind's greatest achievements.

Traditional rights and freedoms have lost their rationale, but the freedom of thought and speech are essential critical values. However once a rational society is achieved the existence of that society seems to cancel the premise of needing individual rights and liberties. If the desire to obtain individual rights and freedoms sounds unrealistic it is not because they are utopian, but because of the strength ranged against them. The more rational and efficient the administration of society becomes, the more unimaginable is the means by which the individual might seize their liberation from such a society.

Needs

For Marcuse society has developed both true and false needs.

- *False needs* are needs which are superimposed. They perpetuate toil, aggressiveness and misery. To love and hate is what you have been taught to love and hate by the technocratic society.
- *True needs* are the needs which have an unqualified claim for satisfaction. These needs are the vital needs of nourishment, shelter

and clothing. The satisfaction of these needs is necessary for the realisation of all other needs.

Marcuse believes that in the last analysis, the question of what true and false needs are must be answered by the individuals themselves, but only in the last analysis; that is, when they are free to give their own answer. As long as individuals in society remain indoctrinated and manipulated they cannot give their true answer. Psychology plays it part as one of the 'tribunals' which decide for people which needs should be developed, thereby distancing the individual from their true needs. Any such organisation for Marcuse is reprehensible as it only serves to spread false needs and one dimensional thought.

Social control is achored in modern society by the new needs it has produced, usually in terms of commodities. A one dimensional society convinces people they need the latest commodity, but society's price is high enough so that only so many can have it. Consequently the desire to have these goods keeps labour going, as a certain amount of money is needed. Added to the economic pressure is the reinforcement by the media and education that the pursuit of these commodities is a just reward and goal. The highest productivity can be used to perpetuate that labour. People are working for free time and goods to free themselves of labour, but to earn more freedom they must do more labour. Such domination in the guise of affluence and liberty extends to all spheres of life. For in pursuit of liberty people are condemned to non liberty and toil. Not only that, Marcuse also believes that the mind is geared to accept such toil uncritically through one dimensional thought.

One Dimensional Thought

One dimensional thought is the state of mind in individuals, a variation of Marxist false consciousness by which the one dimensional society is sustained. An example of one dimensional thought is when liberty in is equated with the range of choice. The range of choice is not, however, a degree of freedom; rather what can actually be chosen is determinant of how 'free' individuals are. Marcuse (1973, p 141) sums up how something that is seen to be the embodiment of

'freedom' in society can really an enemy of that freedom by saying: "The free election of masters does not abolish the masters or the slaves." Free choice does not signify freedom if these goods and services sustain control over lives and cause alienation.

For a true analysis, more than one dimensional thought is needed. Psychology looks at things in a one dimensional way because the social structural aspect is left out of its analysis. The psychological view is endorses the one dimensional view uncritically with a simple minded scientism. Likewise, other traditional institutions besides academia, such as religion, that were traditional forms of critical thinking are now only ceremonial and encouraged by the status quo. Social historical analysis is also vital as it has a fundamental influence. As Gergen argues, because(1973, p 309): "An analysis of theory research in social psychology reveals that while methods of research are scientific in character, theories of social behaviour are primarily reflections of contemporary history."

The Historical Aspects of Knowledge

The eighteenth century brought marked increments of knowledge from the physical sciences. This produced the belief that one could apply scientific methods to human behaviour for correspondingly good results. As a result it was reasoned that if general principles of human behaviour could be developed, social problems and conflicts could be removed from society for the benefit of all. But universal facts of human action cannot really be developed, because the facts upon which they are based do not remain stable. Psychological knowledge cannot transcend the social historical boundaries. The laws of society will not ever be universal. In a sense psychology is in a 'feedback loop' with society, psychology studies society, which feeds back to society, which then influences psychology, because psychology is part of that society.

One Dimensional thought is the price and difficulty of breaking the rational logic which bounds our conceptions of what is possible. The rationale of one dimensional thought is so hard to break, because all areas of society are linked, economic systems mirror scientific etc, by logical and intelligent progress. But the logic behind such one dimensional progress is ultimately that 'all progress is good', which makes it a sick and false logic to those it apparently serves in society.

Rationalism and Logic

Are rationalism and logic appropriate goals for psychology? Because the irrationality of capitalist society's rationality means the productivity of a society is destructive of the development of human needs; an example is peace being maintained by the constant threat of nuclear annihilation. People recognise themselves in their commodities where the object world becomes part of a person's self-concept. From this 'commodity worshiping' it is easy to see how social control as a tool of domination is exercised in the needs of the individual. The very mechanism which ties the individual to their society has changed from the overt physical control of totalitarian societies, to the rational appeal of a successful society which can fulfil material needs. In a one dimensional society that need is to consume goods and live a comfortable life and in this needs name exploitation can be justified. There cannot be public services, for example, which may hurt private profit, hence a challenge to such changes to the health system to maximise profit at the expense of health is seemingly irrational and unfair. Progress cannot be rationally be challenged, so progress is the perfect instrument of domination. Indeed what could be more reasonable than the regulation of free economic activity amongst unequally equipped economic subjects. Or the impediment of national sovereignties that get in the way of international economic unification. The inner self, where opposition to the status quo is born, is gradually whittled down, and the dimension of negative thinking is lost. Reason is achieved by a material process through which advanced industrial society silences and reconciles the opposition.

Marcuse argues that the impact of progress turns reason into *submission* to the material facts of life and psychology produces and reinforces these facts. The individual identifies themselves with an imposed existence and alienation ensues. Later at a more progressive stage of alienation, the false consciousness of rationality becomes the true consciousness and accordingly that ideology becomes the reality.

Ideas, aspirations and objectives that, by their content transcend the established universe, are in one dimensional thought either repelled or reduced to terms of this universe and redefined by the rationality of the given system. For example, the alluring output of the entertainment and

information industries carry with them prescribed attitudes and habits, certain intellectual and emotional reactions which binds the worker to the producers. While indoctrinating and manipulating, these products are immune to their own falsehood.

For Marcuse the defining aspects of society are as follows: A union of productivity and destructiveness and the surrender of negative thought to the powers that be. Furthermore the preservation of wealth in the face of unprecedented misery is rationalised as the driving force behind society. Consequently, confronted with the achievements of society, critical theory and the individual are left without a rationale to transcend this society.

F) Realism and Reality

There is an assumption still prevalent in psychology that is described by Osbeck as follows (1993, p 338):

> ...that an objective world exists out there somewhere that lends itself to observation and which can be broken down into quantifiable terms permitting statistical comparison, which is still meaningful, true, accurate, to the world from which it was divulged.

The obvious limitations of our imperfect minds make it clear that this statement cannot be completely true apart from the existence of an objective world. For as humans we have not achieved the qualitative or quantitative scientific progress required to understand reality totally accurately. Psychology must be pragmatic instead. Currently psychology is a matter of observing phenomena as accurately as possible and delivering predictions about what is likely to happen in certain circumstances. Realism believes however that objects in the physical, psychological and social exist with properties *independent* of our theories of them. A more extended discussion of these and the following points about realism and where they were taken from can be found in Greenwood (1992), Rescher (1987) and Aronson (1984)

Realism recognises the social dimensions of human actions and Psychological states but without the social constructionist denial of a physical independent reality. Realism avoids the methodological

senility of Empiricism while at the same time preserving the fundamental scientific quest for knowledge.

Scientific Realism

Scientific Realism maintains as Greenwood (1992) believes that the linguistic objectivity of scientific theories Empiricism denies. It believes the proof of a given theoretical proposition is independent of the semantics used to explain it. Operational definitions play little part in Scientific Realism in the determination of meaning and theoretical propositions, as opposed to Empiricism. Or that a testable prediction has to be stated in scientific theory. For example when attempting to create predictions of emotion, scientific theories must be used in combination with auxiliary theories, which incorporate cultural specific knowledge of what that 'emotion' constitutes. The meaning of propositions is determined by theory and the descriptions are quite *independent* of the empirical laws they attempt to explain. The psychological state is not always causal in human action for the scientific realist even though it may be present.

Realism accepts that descriptions of reality may be false, that they are symbolic guesses, which make the science of Psychology possible. A theoretical concept may be *socially constructed* but that does not prevent us from believing that it can represent a more realistic and accurate description of reality than alternative theoretical possibilities.

Scientific Realism and the belief in the ability of science to describe reality, must be tempered, by the gap between scientific theories and reality itself. Indeed the realism espoused by science is often more of intent than achievement as science changes its mind relatively regularly according to what are perceived as the facts at the time. Nor does it seem warranted to suppose a future juncture will be achieved when science correctly characterises physical reality. Science should be seen as *estimating reality,* but that estimation is not necessarily accurate. Observation is still the main method of conformation and analysis of phenomena yet clearly observation is no longer adequate to determine reality accurately. This leads to a position which believes that theoretical entities do exist independently, but that they do not actually exist necessarily in the way current science claims. Science does however have the right general idea, that indeed there is a loose

connection between science's ideas and reality. The result of this rough consonance is that science can be improved but not perfected. For even though the attainment of the ideal is impossible the pursuit is still worthwhile. For, the benefits and value of a realist position for Psychology lies not in the attainment of the ideal, ie discovery of the 'real', true world, but in its pursuit. In fact, realising science's limitations as a human activity, does not make the pursuit of truth useless; indeed it does not remove truth's existence. The alternative to pursuing truth is to pay the price of ignorance. For there is a possibility one may be completely accurate in describing reality, but more importantly, the pursuit of truth produces the ultimate good for science in terms of worthwhile results.

Conclusion

The basic assumptions of realism can be summed up as follows:

- There is a mind independent physical reality.
- We can know something about that reality by gathering accurate information about its nature.
- This descriptive knowledge of reality characterises itself, in terms of referents that are independent and do not hinge on some particular human perspective. That reality is independent of the particular ways and means used by inquiries in forming their picture of what is real.
- We can, however, only use our own concepts to address our own issues.
- The evidence which inform us about the reality independent of our conception of it is provided by a theory's ability to predict and explain a large number of phenomena even if they are unobservable.
- On the relationship between theory and observation, realists believe there is much more to perception than the experiencing of data. Observation contains many assumptions of a highly theoretical nature.

An explanation of human action should be constituted by human beliefs, motives and bias, for those are the meaningful part of humans for psychology to study. This does not mean however that psychologists are locked in a world of unrestrained bias and subjectivism. However, they should accept that there is a world outside of us, independent of our own conception. Different theories however, can be judged by a pragmatic standard against each other to see which is the more useful. In other words by competitively comparing different theories of the world humans can make progress in understanding that world. The methodology of psychology should be designed to help us understand this objective world by taking into account our own limitations, and hopefully turn them into strengths. The methods of psychology must not proclaim as they do now that they can conquer the subjective self and will lead to a scientific utopia. Theories should be understood as resting on the pragmatic idea that if we did not take our experience to serve as an indication of objective facts, then we could not validate any objective claims whatsoever.

G) Psychology's Relationship to Society

There are many concerns arising directly from a consideration of the relationship of science to society. These as follows:

Damage to the Environment

Damage to the environment through psychology, although probably not as great a concern as in the physical sciences, is still an important aspect of psychology's relationship to society that needs to be recognised. Especially so, since Psychology is, or should be responsible for monitoring the effects of technology on the human population. Drugs, food additives or noise pollution are a few examples of where Psychology should be involved. There are plenty of instances where the products of technology should not be allowed to spread on society in an unregulated or uncontrolled way. Questions such as 'who has the right to monitor'? 'Whose interests do they serve'? 'Is there too much restriction of science'? All such questions arise when considering the relationship of Psychology to society.

Slippery Slope Technology

Technology provides a means, and a potential, to perform acts against people's morals or wishes. Psychology can also assist such acts by legitimising or making available techniques by not acting on knowledge that this may hurt some people in terms of psychological damage. In particular, there has been tremendous debate over whether experiments without informed consent should be allowed and what potential harm can arise form such experiments. How exactly does entering an experiment with or without consent change a subject's life? The subject or the psychologist may not even be aware of changes when they have happened. The problem is that to get a realistic setting and reaction, the experiments must be conducted *without* the subject knowing what the experiment is about, or even that it is an experiment; to achieve this *deception* must be used.

The trite remark that 'any progress is good progress', is out of date, simply because some forms of knowledge are *incompatible with our ability to deal with them* either socially, morally or humanely.

Economically Exploitative Technology

> The discord reflects an increasingly obvious discrepancy between what science provides in the way of certain verifiable knowledge and what mankind would have in the way of a meaningful existence. Marx (1973, p 73)

Should large amounts of public money be used to fund projects which psychology works on? Especially if some of the public may not like the consequences, or agree with the beliefs of the psychologist? Or if only a few of the public will derive any benefit from research.

Is it right that a psychologist should make money from those he or she is trying to help? Is making money exploiting those who have been exploited and are coming to the psychologist to seek help. How much payment and from what source is appropriate?, and what strings are attached with such payment? All these issues will be dealt with in much greater depth in chapter four. They are issues of economics and how they shape how psychology works. The economic relation is one of the more obvious relationships psychology has to society and one

which profoundly effects it as a science. Unorthodox research, for example, is less likely to be funded due to the perceived greater risk by funding agencies.

Human Subjects Research

Psychological research is restricted necessarily by societal norms and morals. For example, psychology has trouble justifying giving lethal injections or toxic chemicals to its human subjects. The tolerable limits of physical and psychological deprivation or pain cannot be investigated, even if the subjects volunteer. This is a powerful and fundamental aspect of the relationship of psychology to society. Society's moral rights and standards protect the individual and cannot be overridden. Here is a psychological-social factor which governs what psychology can and cannot do and covertly influences how psychologists are allowed to think.

Subversive Knowledge

Subversive knowledge is where knowledge conflicts with ruling ideology or where society believes scientific knowledge is not particularly attractive to its self concept. If knowledge flies in the face of what society holds dear such knowledge can provoke an extreme reaction. Psychology has the potential to discover knowledge that could be particularly disturbing for the society. Psychology also has the responsibility of picking up the pieces of a persons mental state if they have found knowledge that will severely harm them.

Accidents in Psychology

This potential relationship to society of an emergency tends not to happen very often in psychology. Psychology's role is to prevent such accidents from happening by identifying what the human is capable of and what series of events may produce disaster. One hot topic at the moment is the escape of a super bug and altering the gene pool though Recombinant DNA; the fusing together of DNA, inserting it into bacteria and multiplying indefinitely, possibly creating a killer bug.

Other techniques of genetic engineering which are possible right now are to insert a gene into a germ cell- cells that transmit their genes to our offspring. This creates a permanent alteration of the types of genetic information that constitutes our species. This is not allowed by science but who can really stop someone doing this?

Prejudicial Science

The implications of psychological knowledge are not restricted to the scientific world. In intelligence research, Sociology argues that such knowledge has the potential to be interpreted in such a way as to further certain philosophical-political movements at the expense of individuals in society. If scientific knowledge or theories that are developed are perceived to support one section of society over another, then the potential for conflict is great. If one section of society is suitably enraged by the position of another, the psychological establishment may be included in the backlash. The relationship of psychology to society is therefore a complicated and interactive one.

H) Conclusion

It is clear that society is deeply affected by science and technology in complicated, ambiguous and even disturbing ways. Scientists are not the perfect judges of what is acceptable to society and the use of lay people alone can also be disastrous. Indeed, if you give an individual group responsibility often they are harder on that group than an outsider. Creating both lay and psychological representatives, seems the only acceptable position. At all times psychology should remember, to paraphrase Robert Kennedy, that the greatest value of science is not what it does for Psychologists, but what it does for society.

I) Summary

In the social sciences there seems to be two extreme responses to every argument, macroscopic verse microscopic, matter over mind verse mind over matter and social bias verse biological bias for example. Each perspective views the same problems from a different set of assumptions. The different assumptions, or ideologies, determine how psychology conceptualises, defines and deals with the object of

study. Psychologists alienate the human through reifying the process of life by abstraction and methodology. Psychology's specialisation becomes a trained incapacity that differentiates humanity into concepts that give only a limited explanation. A *pragmatic synthesis* is what psychology should strive for. Hopefully it will develop the ability to act effectively on human concerns rather than to promise. How and when that synthesis may come about does not seem clear, but this is no excuse for not trying; at least trying to achieve it would be a nice change. Psychology looks at relationships under certain specified variables, usually not relying on a more broad description and interpretation of the relationship between the context and the behaviour in question. Such an outlook can never capture the meaningful relations between society and its individuals.

Chapter Four
Implications of Psychology's Relationship with Society

A) Psychology Perpetuates the Status Quo

The relationship between psychology and society is powerful, but it is a relationship limited poor value for psychologists and even less value for humanity. Psychology is achieving its goal of affecting society, but it is not achieving the best for society's individuals. What psychology in fact delivers is not only not good enough, but even at times, diametrically opposed to the goal of benefiting the individual.

Psychology shies away from seemingly interfering subjectivity and hides under a mantle of scientific 'purity', when in fact the social structural influences exert considerable influence amongst its ranks. For example psychology does not investigate the relationship it has to those that financially support it as part of its *scientific* activities. Psychology is at best shy to admit to its larger institutional functions and at worst lies about its more insidious capabilities and activities. As Prilleltensky (1989, p795) comments: "Psychology and society are involved in a network of mutual influences that contribute to shape each other."

Why is psychology's relationship to society, then, one of denial? Primarily, it is a form of false consciousness, resulting from poor education, the use of a poor scientific method and mainly because those with power are trying to keep it from those without. While psychology has entered the competitive market economy, it has lost sight of the effect this society has on its science. Indeed 'capitalism' is a dirty word in psychology, which means other valuable and fundamental terms such as 'commodity' or 'market' are simply not used. These and many other essential concepts of human motivation are left out of psychological analysis because they are seen as inappropriate for scientific study. All these prime motivational factors which would have been accepted had a materialist analysis been used instead, have seemingly been ignored and attacked by a cult of individuality. Consequently, with such tunnel vision focusing exclusively on the individual, and not society, it is no surprise that Psychology is far from recognising and understanding the major problems of society, the factors that really motivates people are unmistakably tied to the material and economic world.

Psychology has yet to recognise the fact that the assumptions it makes are a reflection of the society in which its professionals are socialised. In terms of Marcusian critical analysis, it is unable to critically examine the dominant parts of society of which it is a part of. Instead, some sort of compromise position is maintained, whereby ignoring some of the major influences on human lives, psychologists somehow expect to be able to understand these same influences! By failing to examine this interplay between social structure and individual subjectivity, Psychology can be justly charged with reinforcing the status quo.

Because as Handy (1987, p 162) states:"...the emphasis on individualism may help legitimate dominant groups within society by obscuring structural inequalities behind a facade of equal opportunities."I believe that psychology must acknowledge and use rather than *ignore* the social structural forces in society. Not to do this is to avoid doing anything meaningful towards helping people combat negative social structural forces, as well as reinforcing the existing social structure of exploitation.

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B) Psychology Reinforces and Replicates the Status Quo

What Psychologists Do

Many assume that psychologists spend most of their time scientifically observing and explaining human behaviour and thought. However, unfortunately this only consumes a fraction of their time. Mostly psychologists give lectures, grade papers, attend conferences, write reports, sit on committees, seek positions and promotion, conduct therapy or consult, and then spend a large proportion of their day, as is natural, away from their job. The reality is that psychologists largely engage in activities which maintain and improve their economic status.

The psychologist when interacting with society inevitably does so from a *biased position*. Three major positions of ideology and bias are listed.

- The psychologist as moraliser uses and believes in *personal* morality.
- The psychologist as scientist, uses and believes in psychology's organising body, institution, methodology and paradigm. The psychologist accepts implicitly the morality of the *larger organising* body.
- The psychologist as mediator or therapist believes that one side is right. This is to assume that the true answer to the problem is out there to be found.

As part of society psychologists have an obligation to help clear up some of the problems they have created or enlarged. But the social implications of new developments are not considered as seriously as they should because psychology's applications were produced in a scientific environment where social context was not taken into account. Accordingly, even though psychology's applications may be developed with the best of intentions, its applications cannot be guaranteed to work for those good intentions. For example, Industrial psychology has used personality tests to steer people into dull, oppressive jobs, including or excluding them from various types of employment. This has had a negative influence upon many lives. Underlying many of psychology's applications and therapies is an inherent belief that the solution of people's problems lies totally *within*. This is different from teaching people that the responsibility of getting better or helping themselves, lies within them, but realising that the problems they face are not necessarily caused by them. For the social system is fundamentally exploitative and oppressive. Psychology must realise that people are limited by the economic and rational factors placed upon them by the situation they are in, while still getting people to manage the situation they find themselves in to further personal growth.

The nature of science is that it refers back to a normative standard or average, which has a consequence of discriminating against the extremes. In society these extremes are usually minority groups which are unfairly isolated by society. Consequently, if the true relationship of psychological science to society is not understood, the design and application of psychological techniques will be made without an awareness of the pragmatic and practical consequences to all members of society, not just the average person.

Behaviour modification for example requires *value judgements* to decide exactly what needs modifying. However, such judgements are not made in splendid scientific isolation and purity of reasoning. The net effect of ignoring influences which are non scientific in the process of making judgements is to naturally let their influence run unchecked. Prilleltensky (1989, p 795-796) outlines the two options Psychology has, and which one it takes:

> ...psychology can influence society in two opposite directions:
> a) It can reaffirm or reinforce existing policies and consequently ratify the status quo, or b) it can criticise the social order and thus foster changes, practically the former outweighs the latter.

And Prilleltensky (1989, p 800) further explains this process:

> ...immunity to ideological influences within the profession has obstructed an in depth examination of the interaction between the social forces and psychology. The penetration of the prevalent ideology in the realm of psychological knowledge often results in not only an uncritical acceptance of the status quo but also the active endorsement of it.

Industrial psychology is a particularly reprehensible example of this endorsement: it describes the capitalist means of production as an ideal which 'naturally' people become part of, and that it represents all that is good in human behaviour. Simply by describing behaviour in an industrial setting means that psychology is linking capitalist work to the human as a natural psychological process. In reality, however, it is a process of social-historical influence, social structural forces operating on individuals to make them exploitable or to exploit them. If psychology studies the industrial world with an analysis that is *uncritical*, without a social structural component, then that world is seen as natural and given. As a matter of fact, ideals may be so deeply rooted in an individuals consciousness, that to resist them would seem nonsensical. Many other views of the capitalist system, (Marxist, Weberian) see it as exploitative and oppressive. Industrial Psychology has made work a *functional* thing, as Industrial psychology is a form of *functionalist psychology*. Functionalism believes that all actors and actions in society have a purpose, a function which is good and intended for that society and its inhabitants. For example the alcoholics on park benches have a purpose because they teach children not to drink to excess. Unfortunately this school of thought paints inequalities and misfortunes in society as being natural and inherently *necessary* for the smooth running of society. This may be partially true but it does not

make it right! This prominent ideology in psychology highlights its exploitative function verses its potential to become a liberating, subjective and meaningful discipline.

An example of how psychology supports the status quo is given by Sarason (1981), when he outlines psychology's involvement in the development of the interstate highways in the United States of America. Psychology in this instance 'lovingly' (Using Sarason own words), adopted support for such a network of super highways. Psychologists at the time saw no need to investigate any of the important potential effects on people such as:

1) Where the people living in the Ghettos would be forced to go to.
2) the potential removal of a sense of belonging-without roots
3) the effect of suburbanisation.
4) the effect on the railroad system.
5) the effect on family life and organisation.
6) the social and environmental health of cities would decline.

All of these potential effects, of course, occurred. It was not that the policy was mindless, but that psychology sided with the status quo without critically questioning the project. Naturally, psychology's rationale for support of such a project was based on the belief that economic growth is necessary and good and whatever contributes to economic growth contributes to individual well being.

Without an in depth or qualitative *analysis of social structural forces*, there seems no sensible reason how anyone could be against such 'progress'. The attitude that 'all progress is good' is a shared ideology of both psychology and society.

Capitalism bends its will upon systems such as health, education, one by one, to fit its mode production. Against such an intrusion psychology has not put up a stern defence; rather it has taken the easy option of adopting a position of supporting the capitalist system with no genuine debate over whether it should.

C) Psychology and Society are in Relationship of Mutual Benefit

> If the institutional worlds of science and of politics
> have been badly mixed up over the past quarter-century,
> it has been less a case of violation by superior
> force than of mutual seduction. Price (1978, p 89)

The capitalist system gives Psychology rewards and power for its compliance. Coons (1990, p 140) has this to say about Psychology's desire for rewards: "...the personal comfort of psychologists is taking place over formal goals of developing knowledge and applying it for the betterment of society." There is an *unstated acceptance of the social order* by psychology in return for respect from that order. Psychologists like anyone else want to improve their job status, job security and income, and this inevitably affects psychological science. That is, to make money and retain a professional identity survival tactics are needed. Simply ignoring structural effects such as class does not mean that they will have any less influence. If anything they will become more powerful as the unchecked effect on psychology grows. The prime motivation of Psychologist's has become to sustain psychology's place in the market, not to reform the system for the benefit of others. Indeed, the financial means not only outweigh the academic ends, but the ends have nearly ceased to receive consideration.

One social reward structure which has a direct and tangible influence on psychology is research funding. Research in a capitalist society requires substantial funds, which come largely from the government or from private social organisations. As in any transaction involving money, psychologists are entering into a situation of economics and they cannot just help themselves to a 'free lunch'. As a result no academic activity is free of economic strings. An outline of these 'strings' is needed. In the post-war years governmental funding increased and psychologists adopted the 'take now and ask questions later' approach. When the funding was reduced psychologists found themselves in a position of having to justify their research to their

institutional masters. Psychology entered the transactions of the capitalist system and therefore became part of the exploitative and alienating means of production. Hence, psychology's aims are not to help the majority in society escape from exploitation, or address the problems these influences produced, because the wider desire of capitalist society does demand it. Rather, psychology's purpose was to control its citizens to reproduce the status quo. As a result, a psychologists labour is sold like any other commodity on the market. It is a relationship of increasing commitment and competition. But like any actor on the market, psychology cannot *control* the process and will have to make more and more scientific sacrifices in the interests of staying economically viable. Creation of wealth has become and will continue to be the motivating factor for psychologists, not necessarily because they are inherently greedy, but because in a capitalist society this demand cannot be helped. Generating surplus wealth is an urgent motivating factor in ever increasing force. Psychology has learnt that how many dollars it gets is ultimately dependent on how useful it is to the exploitative powers, and so if has had to become more and more competitive. Even if psychology can survive as a profession, the integrity of psychologists as independent scientists working for the interests of the individuals will not survive. The clear message is that to get a reward *mainstream publications* are required, as opposed to maverick explorations, or criticism. The discipline, and its practitioners, must conform to the economic realities of life at the expense of the scientific.

By using a poor analysis of its work, one that ignores economic factors, psychology will claim that the aforementioned effects are not happening. Through its unfortunate refusal to incorporate into its analysis any notion of social-historical forces psychology fails to see the *materialist influences* acting upon its work and the behaviour of those it studies. Indeed educational cutbacks are probably endorsed by psychologists as 'necessary rationalisations' of the education sector, that the university and schools must become businesses to be 'fair' to the rest of society. But is it fair when the educational sector ceases to provide independent institutions which search for knowledge that serves society? Those responsible for the sale are part of the cult of free-market rationalism. But what of the alternative? The problem is

that if psychology makes a stand it will suffer the consequences, not least of which will be a loss of funding. But, it will at least have integrity and the best interests at heart of those that come to it for help. It will be in a position to genuinely help those who seek assistance by being a science which understands the reflective influence of the society and the individual on each other. As a science it will now make *real* progress. Unfortunately, this is probably a dream as psychology continues to pat itself on the back while largely ignoring other critical views.

The relationship between psychology and the powerful elements of society has been one of mutual benefit. The benefits are partly responsible for psychology's inability to look at the science-society relationship in a critical light. The inability to examine this relationship credibly will be discussed later.

D) Psychology as an Institution

> Organisations are replete with competing ideologies, and goals must function within turbulent environments with complex technologies and threatening political climates." Bjoe (1982, p 18)

> Myth-making is an adaptive mechanism whereby groups in an organisation maintain logic frameworks to attribute meaning to activities and events. Bjoe (1982, p 18)

Psychology is located within an institutional framework where benefits are gained in terms of power and privilege. Psychology's relationship to society is that of an *institution* of society and, therefore, any knowledge produced is institutional knowledge. The institution restricts those who would be psychologists to those who have entered it and passed the rites of passage. Also the institution is supported by the existing social order which expects compliance of that institution to perform and replicate functions. Likewise, the status quo is also dependant on the institution for its support.

Because it is an environment of mutual benefit psychology finds it very hard to challenge the existing social order. More precisely, if there

was to be a major change to the methods and analysis of research which separated psychology from its institutional shelter, psychology would suffer the equivalent of a nervous breakdown. Such a change would be too much for psychologists, set in their comfortable institutional ways to come to terms with. Furthermore all previous work done would have to be reassessed as to its true value, and it is these thoughts of the anticipated chaos which is partly stopping such a reorganisation. In particular, psychologists who have the biggest reputations and the greatest power to make such a change possible are also the *least likely* to do so, because they have the most to lose. Bramel and Friend (1981, p 887), outline this attitude when commenting on the Hawthorne studies:

> ...why should they (psychologists) bother to go back to examine the basic research documents if the authoritative interpretations appear so consistent with their cognitive world and material interests.

Psychologists, it seems, have fallen prey to their own disconfirming observation bias. By ignoring the influence society has on itself and the problems it addresses, psychology is unable to address the social-structural aspects of individual's problems. This has led psychology to serve, as Sampson (1981, p 780) believes: "...an isolating , atomising, individualising and alienating function." In society the psychologist is put on an empirically privileged pedestal above the lay person. But a reason why psychology is a more vulnerable science than most is due to the amount of psychology everyday people do. It must, therefore, strive to be different and superior to the lay person, desperately trying to distance itself from real society and its genuine concerns. Money and poverty for example are almost dirty words. Psychologists find it difficult to maintain their professional territory whereas other sciences have little fear of a takeover. Everyone in a society is familiar with psychology: physicians, teachers, clergy and children all use and know it to some degree. Psychology is in effect an explanation of what everybody already knows. The result of this is that psychologist's are trying to perfect their role as a scientist whereas it should be a role of perfecting science. Weiss asserts that (1973, p 93):

> What is really crucial is that as a social institution supported by those most satisfied with American society and unwilling to take seriously major criticisms of it, the university has simply refused to use its virtual monopoly of brains to stand apart from society and view it critically.
>
> ...the university and the college are part of the ruling establishment and work entirely in its uncritical spirit. Weiss, (1973, p 94)

Institutional knowledge is developed by power relationships of competition for financial gain, and any knowledge gained is used for the same goals. The knowledge formulation, in psychology's case scientific "facts", is a process of agreement and opinion. Individuals with the most power have the most say in determining knowledge; others who have not entered the system of the institution are denied any influence in this process of knowledge production. The wider society therefore, is denied the power of deciding reality. From this situation of power psychologists are able to mould themselves into a position in the marketplace from where they can command reward and power by making their knowledge-production *exclusive*. After several years of impoverishment students of psychology see others their age are working and relatively wealthy and find such a proposition very attractive. Accordingly, the desire for power is produced by this relationship to society.

Psychology does not map onto the real world particularly well. Or, in a more sinister light, psychology uses terms of reference apart from ordinary people's experience to place a divide between *those who know* and *those that do not.* If science matches reality, then science becomes accessible. If the ordinary person felt as though they could participate the in power psychology holds as an institution would cease to exist.

The tradition of separating scientists into institutional departmental boxes has been challenged by interdisciplinary research. Sewell (1989) reviews such a challenge by a group of psychologists, statisticians, anthropologists, political scientists, psychiatrists and sociologists in investigating the effects of bombing on Japanese citizens. He concludes that, although this interdisciplinary study, among others, was

relatively successful, this fact was largely ignored due to the threat it posed to the institutional structure. Interdisciplinary research goes against the status quo of several departments in competition for the resources available. Not only is interdisciplinary research analogous to departmental funding, it is also threatening to the departmental structure itself. Its benefits, especially in theory development have been pushed aside, because a model of *cooperation* is inconsistent with the societal goals of *strength through competition.* This idea that competition and adversarial interaction are good for all of society including science is securely established. Such a common theme of strength through competition and individualism runs rife in the social dogmas including the American Constitution, Social Darwinism, our education system and adversarial politics. It is yet another example of Psychology's scientific potential relationship to society being sacrificed for its economic relationship to society. There is, however, nothing inherently *wrong* with competition as long as it is not seen as the only alternative. Darwinism and Capitalism both serve to make each other seem natural, inevitable and without alternative. Psychology, far from being willing to analyse Capitalism in meaningful terms, or even maintain a neutral stance, has through such applications as Industrial Psychology actively tried to improve the efficiency of this existing system.

The Issues of Funding

> ...on the campus yesterdays partner now appears increasingly as today's oppressor, indispensable but stingy, and ever more intrusive. Miller (1978, p 33)

> Educational institutions are being changed from communities of colleagues who work together because they share interests, values, and goals to collections of individuals that function as groups through formal controls and contractual arrangements. Bevan (1980, p 200)

The funding of psychology is perhaps the most apparent and tangible relationship psychology has with its society. The character of this

relationship is competition for a scarce resource. In meaningful terms this means there is not enough money to go around. The link is simple: when funds are increased, research is increased and the more psychologists are employed to work. Institutional groups (eg companies) such as the government represent structural forces which do not necessarily speak or work for the common good. To survive therefore, psychology must perform and analyse research not on criteria of a strictly scientific kind but according to other vested interests. In particular, whether if the funding is of a certain nature then will the end result be a psychology of that same nature?

In the university system psychology adopts the larger societal methods of payment and competition even though officially the university is supposed to be an exception where money does not stand in the way of science, Hall (1983, p 90) puts it this way:

> University develops its reward structure on the assumption that the faculty is an aggregate of atomised, identical persons who should be evaluated on the basis of individual achievements based on universal criteria. They have rejected the idea that a department is a community of scholars of a network of overlapping relationships and that knowledge is a dialogue and a product of collaboration. How, they argue, could you give salary increases and promotions in such a system?

One must question the priorities of psychology and the university in general. For, as we can see, the university is not set up as a system to produce the best students and the best science, but rather to get the most efficient system of payment. This is the economic reality of psychology, and it influences all areas of the field's contact with society. Why are people not up in arms about this? Once again an insight to the reason can be found in social structural analysis Psychology does not disrupt the prescribed view of the dominant structures in society, and thereby keeps everybody 'happy'.

In the scramble for money the more outrageous claims are the ones which are likely to attract and be heard over the many voices clamouring for funding. For it is said a half truth like a half brick flies

further. Instead of funding being allocated on scientific merit, it is delivered on the grounds of the fantastic, only further hurting psychology's reputation. The aims of the science as a whole are in jeopardy; a potentially benevolent relationship with human society has become a potentially malevolent one.

Ash (1992, p 198), has this to say about how the lack of attention paid to the nature of the funding:

> Researchers tend to underestimate the broader social and cultural contexts such as funding sources and the relationships of particular research topics and goals to larger societal pressures or issues.

Indeed, certain areas of study are more attractive to the funding organisations and *will* be funded. Research that is not so attractive will not gain this support. Because psychology and psychologists are in effect part of the capitalist system of monetary reward, one can see the scientific problem that arises. Naturally, as a means of survival psychologists are attracted to doing the research that will be funded. Thus rather than research being motivated for *scientific reasons* is now motivated for *financial means*. Psychologists must be careful now to prove their worth to funding agencies lest that money be further reduced. By accepting the big dollars in the past we have sold the future of our science down the river. As a consequence psychology is wholly reliant on keeping the good will of interests non scientific. Psychology must now learn to say 'no' and be strong enough to give up what has been given by saying 'yes'. For as Benjamin Franklin once said '*those that give up essential liberty to purchase a little temporary safety deserve neither liberty nor safety.*'

And yet why are such matters of the nature of funding and its implications seldom raised? McNicol (1988, p 277) answers as follows: "It is difficult for the academic departments or their institutions to ask these questions of themselves, and so they have tended to go unanswered." The apparent lack of a motivation to ask the questions, who is funding us and why? is explained in more forthright fashion by Scriven (1980, p 66):

> The pigs have got their snouts in the trough and everyone else can be counted on either to keep quiet so as not to jeopardise their chances, or to be dismissed as crying sour grapes.

Theoretically condemning the nature of funding as corruptible and unscientific is tempered by the knowledge that pragmatically their is little option but to accept such funds. It would indeed be in psychology's interests to have a perfect system of ample funding with no ties but that is impossible. The problem of monetary price and exchange for scientific work is not easily solvable either, as it is in the interests of the funding institutions to exert influence and control.

So what can Psychology do if the situation is unavoidable? The answer is that it must actively and therorectically acknowledge its economic relationship to society. It must learn to become political and enlist economists in its ranks. It cannot remain purely psychological if it is to remain in credit both financially and morally to its clients. Perhaps if the funds are used for the benefit of the public on a meaningful level, goodwill and funding will be increased. To gain more power as a lobby group at a governmental level would require psychology to have a practical and meaningful effect on peoples lives for their good cannot longer afford to be *socially irrelevant.* To remain morally and financially in credit it must 'play' the system at its own game, and any thought of benevolent governmental funding has to go. Instead, it must learn to become aggressive in a financial way if it is to become a science which acts for the benefit of the greater good. The paradox is that to stop economics controlling its science, psychology must not ignore economics but learn to control it.

There is danger, however, that psychology will become a victim of its own success. First, if psychology becomes successful it will come under direct public pressure, and second it may be patronised or punished for the anticipated use to which the new knowledge might be put. For these reasons therefore, the production of knowledge within psychology is partially determined by *outside pressures* rather than by the psychologists themselves. Psychologists must take these pressures into account.

The lay public should have the power of veto in deciding what public money should be spent on, science funding included. This does not restrict freedom as the psychologist is still free to pursue private funding or use their own funds. If the idea a psychologist is good enough it should pay dividends. It falls upon the psychologists to improve their voice in the funding ear. It will not do so by seeing itself as pure science without relationship to society.

In America while Ronald Regan was President. A special screening panel reviewed each social science research proposal to assure it passed the politically defined, litmus test of the 'National Institute of Mental Health'. Before psychologists are given the privilege of studying humanity an understanding and improvement of what really motivates psychologists and what to what extent non scientific interests effect scientific ones is needed.

Journals and the Motivation to Publish

Editors of research journals want experiments of new case studies because they sell. Endless repetition in their journals does not attract the psychological community to buy their journal. The number of published journal articles correlates to psychologist's status, pay and promotion opportunities. So if journals are interested in new research, then it is to this that psychologists will pay most attention. Influential journals will naturally endorse the mainstream, *(naturally)*, because mainstream articles sell to the mainstream, which is the richest and biggest market. The unresolved problem, however, is that it is *not questioned* whether this approach is the correct one to take. Research is motivated not by the desire to further science, a but by a desire to succeed in the most prestigious journals and thus secure financial stability. The articles published are determined not by what is the *best science* but by what *will sell* and the two do not always go together.

Kressel (1993, p51) produced a succinct series of points outlining what increases a psychologist's chances of being published and therefore the driving motivations behind publishing which contrast with the lofty goals of furthering science:

1) Avoid originality and imagination.
2) Strive for a dry passive and rigid style.

3) Publish and be dammed, ask questions later.
4) The outcome of the research must be certain before money can be invested in the experimental set up.
5) Select the topics to be studied by their ability to fit experimental designs.
6) Select quickly finished topics which minimise investment relative to return.
7) Select college students as subjects. They are cheaper and respect the professor which increases the likelihood of significant results. Using students ensures replication.

The perceived business of publishing is somewhat different from reality. Cognitive dissonance plays a wonderfully ironic role as students of psychology and psychologists themselves come to accept this system as the right system, modifying their belief systems to match their behaviour. Ironic, because they are often students of cognitive dissonance. Dannette (1966, p 345) looks at this fantasy world not as an avoidance of pain but as a continuation of reinforcement:

> ...the compulsion is to forget what we are really doing because of the fun we may be enjoying with our apparatus, our computers, our models or the simple act of testing statistical null hypotheses.

Conclusion

Funding is an issue which is difficult to sort out. There is a definite danger in being funded by outside influences, especially when that funding represents the survival of the field. I have no answer that would free Psychology from its dangerous liaison with capitalist society: on a pragmatic level the issue is not easily resolved. Yet psychology must be attractive to societal funding to enable it to do many things including the power to change the world it lives in. But it ca not forget its primary obligation to work for human beings. For the same funding that allows psychology to progress may drive psychology to a progress that is more damaging for humans than no progress at all. Therefore, psychology must figure out a way to remain attractive to

funding agencies without becoming the pawns of those agencies. Psychology must at all costs retain its dignity and that of its human clients. Hence, the question must be how does psychology and the larger university maintain its ideal of being an educational institution; without solely becoming a big business? The solution starts with changing and addressing the relationship of psychology to society's structures and institutions. It is perhaps an impossible task, and there appears to be no answer. Yet if the problem was thought about and solutions were attempted, this would make for a welcome change. As Scriven (1980, p 66) asserts " the scientific imperative in psychology is self scrutiny."

E) Psychology Mirrors and Becomes Society

The dominant reality of psychology is a cult of competition, where everyone fights to be heard, by operating with inherent self serving motivations. If the motivation for psychology's actions are for the benefit of humans this is desirable, but if psychology's actions work to further benefit the status quo then this is detrimental. Relying on facts, accuracy and logic will not deliver the ability to discriminate between the good and the bad uses of psychology highlighted above. What is needed to maintain the safety of those we try and help is value judgements. It will at least maintain the motivation to help those who need help.

Psychology mirrors society in that it feels pressured to bring in a vast array of new courses (commodities) as a reflection of being part of the free-market economy. Competition, however, amongst the different departments and schools of psychology for resources is encouraged and theorists whose findings are consistent with the status quo are rewarded. For example Piaget's well-known individualistic model of the human, has dominated Vigotsky's more obscure environmental model of human cognitive development.

The Government determines student fees in which leads to fragmentation and an undue elevation in the status of more

economically costly courses. The justification in charging Dentistry students much more than others, is that they are either rich already, or are going to be in the future. Note that this is in itself a replication of the status quo as only the rich *can* pay such high fees. The deterrent for the poor entering psychology is the prospect of a huge loan debt or working to fund their degree. The obvious disadvantage of this is less time spent working on their degree. Likewise the educational process of completing a psychology degree works to favour the chances of the economically secure sector of society, and the status quo is perpetuated. Therefore, the matter of who becomes a psychologist is at least partially determined on economic rather than intellectual grounds.

The need for government to organise and control the populace is parallels psychology's preoccupation with control and prediction of behaviour. The world of material commodities is like a carrot on a stick one works for them but never quite has enough to be satisfied. This is mirrored in reinforcement theory where work earns the promise of a small reward at the end. Yet more reward simply means more exploitation. Psychological laws are not only determined by laws of human nature but also by laws of economics.

F) Individualism

> One is strongly inclined to say that in Psychology's haste to become a science, and respond to the institutional request of education, government and industry the individual has been lost. Williams (1980, p 93)

Individualism is of great import in psychology. Here, the healthy human mind is described as autonomous and free to develop so long as it does not infringe on others. It is assumed that society provides a benign setting for the individual to develop, and that human behaviour is best explained by individual characteristics, desires and motivations. The rights of the individual are protected it is assumed by the state.

Though a contradiction in terms, psychology's obsession with focusing exclusively on the level of the individual, has left the individual out in the cold. This attitude of individualism believes the victim is said to hold within them the causes of their misfortune. How

realistic this belief is, is highly debatable. For example, the lower classes major problem is a lack of money not their 'deviant value culture'. Yet when trying to explain why countries are poor, terms such as 'achievement motivation' are still bandied around. There is no reference to the system which makes individuals stay poor, and victim blaming is seemingly cloaked with kindness and concern. Governments like to encourage an attitude of individual blame for the position of a person so it has justification for removing costly support and services. Often those that blame the victim have the victims best interests at heart but they propagate the problem by victim blaming; As Ryan (1971, p 22) states:

"Individualism pervades our most crucial assumptions so thoroughly that it is hardly noticed, and appears one with altruism and humanitarianism." Contradictorily the Government exerts more and more control over its citizens through taxes and information agencies. So while the society lays the responsibility with the individual, it also simultaneously gives the individual less and less control over their destiny. Therefore, while the individual has to accept responsibility for the system, they have to also be subservient to its needs.

The individual is not only under attack from individualistic thinking in governmental policies, but also in psychological policy. Rarely does one find that psychological test results are used by the test taker for their own self understanding and respect. Usually tests are a justified means of competition. Psychological testing is not, therefore, for the benefit of the people that use them but the institutions that do. Just as hospitals should not spread disease and the police should not cause crime, so psychology should not attack the rights and well being of the individual.

The current psychological view is that when something goes wrong someone is to blame and that this person must be punished. With individualism the guilty person is responsible for their crime and rehabilitation. Such views justify a lack of action being taken to improve systems to help individuals because the systems carry no blame. Rather than change the school system for example, the disadvantaged are given compensatory education, basically giving them more of the system which failed them in the first place. Individualism's response to people failing in the system is limited to

giving them more of what compounds and is responsible for their problems. As an example, and as a consequence, there are many programs to assist cultural minorities but few to address racism. Capitalist society cannot help the poor in regards to solving their problems; it would be illogical for capitalism to do so. The reason the poor are poor is because the rich are so rich, for the rich to become rich and they *must* produce surplus profit which requires exploitation of either their own society or others. Who would expect the rich to literally cut their own throats to save the poor, and yet this is what individualism believes will happen. The problem cannot be solved by individualistic logic. Psychology, which has adopted the principles of 'individualism' and 'helping the individual' will find that the two interests are not complementary. There may well be a reason for adopting individualism, although is seemingly implausible thing to do if helping people is the goal. This is the unpleasantness in thinking that society is to blame and that it has something to do with victims failure. Likewise, if a person is successful, it is far more attractive for that person to think that the credit for this lies totally within themselves. Blaming the victim is then a subtle compromise between self interest and charitable concern. For example, the middle classes do not want to attack the system which has been so good to them but feel it is right to help those less fortunate. This basic human motivation of avoiding pain, and searching for a more pleasurable explanation details psychology's role in such a victim blaming society. The blaming of victims for their own problems is therefore the solution to this contradiction. Psychology's particular solution is to analyse victims, scientifically and objectively to see what it is about *them* that made them so vulnerable. Consequently, the scientific psychological analysis, like the middle and upper classes beliefs, averts placing due blame on the system that got psychology where it is today.

Psychology's particular role is to show the poor, the homeless, jobless, etc; to be inherently different for victim blaming to be successful. The 'get quick rich' books, or the 'secret of my success' books never fail to amaze as it is always the successful authors 'attitude' that was the reason for their success. Yet rationally there must always be in a factory, 90 workers, 10 supervisors, and 1 manager. The authors of such books worked hard, but so did others

work even harder with more talent and motivation, but still not achieve. Why? The answer is simple. The world is not a fair place, and working harder only increases one's chances, luck and privilege play the greater part. Psychology produces the 'personality types' and identifies them, scientifically so it can be shown why they succeeded. Unfortunately, if everyone was to improve to achieve this 'personality type' then relatively nothing would have changed. The factory still requires that the majority are exploited by the minority and that there can only be one manager. The secret to success has little to do with 'achieving' personality types, hard work, intelligence or motivation; rather, luck and privilege are determinant. The failure of psychology to identify and 'push' this reality is a reflection of its role as replicator of the system which needs to produce relative human failure to exploit so ensuring that the scramble for resources is unfair.

Psychology overestimates the amount of control the individual has on the situation, which negatively affects the underprivileged while favourably affecting the privileged. To what degree we should blame ourselves or those around us is debatable. The point is that this issue is not debated in psychology. It has taken an extreme position for insidious or for foolish reasons and the consequence of such rampant individualism in psychology is that equality is no longer a goal. Psychology's practicing philosophy of the self places the locus of causality for maladaptive behaviour solely within the individual. As a result the implications of ignoring social structural influences on the individual are serious indeed as the poor learn to be poor and expect little else. There is a vast literature on the Psychological differences between the poor and the middle class in terms of values, child rearing, delayed gratification, aspiration, sexual practices and the like. What most of the people who discover these effects fail to do is ask why is there a difference in these various factors between classes? Could it be money? Groucho Marx, was asked, what is the difference between ourselves and the rich? His reply was 'the rich have more money'. The obvious fact that the amount of money a person has determines their lifestyle habits and subsequent cognition's and psychological states carries very little weight with psychology. Superficial reasoning allows psychology to blame the lower class for being lower class, and reports low scores on different psychological and intelligence scales as 'proof'.

If a person had every single characteristic of a poor person that Psychology has identified, and also had a million dollars, then they would be no longer considered poor. The point is that it is not the psychological characteristics that determine a poor person being poor or the underprivileged minority's being underprivileged; it is money. If psychology was to solve all lower class and underprivileged attitudinal problems, the problems would remain for them, that they would still have no money. Archibald (1989, p 62) emphasises the determining role material considerations have:

> ...whether or not and to what extent individuals change their social relations and themselves depends upon a number of circumstances. For one thing they must be objectively capable of doing so.

Identifying factors of the underprivileged is ridiculous and hypocritical, for if the as a group shared such characteristics f the rich and the poor shared the rich characteristics, the poor would be labelled as the deviant class and the rich as the adaptive class by psychology. The most ridiculous aspect of Psychological research on underprivileged groups is that, in labelling the underprivileged as having non adaptive attitudes, they fail to realise that it is a material condition of the rich's success that the poor have no success. Indeed for all that is held dear by a society to continue to survive, libraries, great schools of art, democracy etc, then there must be the poor, the underprivileged and the minorities. There are inequalities in our society simply because capitalist society will not survive without them. Consequently, those with the power to change society to remove such inequalities would lose that power and wealth if they did. Accordingly they do not. The fundamental psychology of society and the individuals in it is that for the system to change to help individuals it must first destroy itself. For such a contradiction to remain, ideologies such as individualism and false consciousness must be maintained. A simple psychological and material fact is those that have do not want to lose it, those that do not have are taught they do not want it. A simple fact, but a fact which is so fundamental to human action and thought yet beyond the

psychological mindset. This is why change for the underprivileged is so hard to achieve.

An example of how without a material analysis psychology misconstrues the causal reason for failure is the supposed inability to delay gratification of the disadvantaged. But as Ryan (1971, p 277) states:

> A victim of his environment, the ghetto child begins his school career, psychologically, socially and physically disadvantaged. He is oriented to the present rather than to the future, to immediate needs rather than delayed.

The apparent weakness of the inability to delay gratification is in fact an understandable and adaptive response to the situation the individual finds themselves in.

Another contradiction inherent in psychology occurs when making statements about individual differences. The evidence is gathered from large groups of individuals in respect to their average performance. This seems somewhat ridiculous, as it makes conclusions of the individual's personality and motivation by equating the individual performance with a group average. The subtlety of whether the individual's score or response in an experiment is any different from another group average is completely lost. This empowers individualism to place blame squarely on the individual for a group trait while refusing to let that individual be any different from the group.

Sampson (1977, p 779) outlines they historical role individualistic influences have when he states:

> The liberating effects of such self contained individualism soon pale and become imprisoning and reason destroying, when they become the driving force of history; at a time when major social issues demand interdependence.

There are tragic consequences as psychological practitioners work on the basis that the individual is the source of the problem. Hence the working class blame themselves for lack of success and accept others authority over them because they have apparently 'developed their

potential'. There have been some scarce but excellent psychological studies to outline such consequences.

- Lewis (1978), showed how the lower middle class were not successful in terms of the American Dream but felt superior to the poor by denigrating them as lazy and immoral and failing to see that they were both being exploited from birth. The lower middle class according to Lewis needed the poor for self esteem and a sense of progress rather than becoming angry at their own exploitation.

- Richard Sennet and Jonathan Cobb (1972), through their interviews with working class men, revealed how these men blame themselves for their lack of success and accept the authority of others because they feel they have not developed to their full potential.

- Rubins (1976) study revealed that even where working class wives had hard working, non drinking, non abusive husbands, unlike their mothers, they could not understand why they were unhappy, so they assumed their was something wrong with themselves. They could not see that they were dissatisfied with sex stereotyping and sex stereotypical scripts for male and female.

Modern psychology still believes that the structure or situation that perpetuates conditions of concern in individuals should not be changed; if progress has not been acquired, then it is the individuals fault. For example, in New Zealand the closure of rural services is rationalised and justified by an underlying Government argument that it is because the rural people *fail* to use the facilities as often as the city. Whereas a balanced view, removed from pure economic rationalism, would see that when applied to hospitals such reasoning is immoral.

In certain social contexts individualism can be very liberating but in other circumstances imprisoning for the individual. That is why it is vital not to deny the importance of human agency but, at the same time

to get psychology to put individual activity in a social context as well. A broader search for solutions to human problems is needed which should include the social context. For example as well as trying to eliminate racism from the hearts and minds of people, psychology should try to eliminate the conditions which foster such acts. If psychology can turn its attention away from fruitless tinkering with the victim and fix its sights on the real targets through redistribution of money and power to those that need it, it will help. This redistribution would go against capitalist inclination. Therefore it seems that no easy solution is in the offering. However the first step is to see the problems of inequality in their true materialist light.

Individualism comes from the desire to implement scientism. Psychology needs to concentrate not only on changing the individual to fit the environment but, also on changing the environment to fit the individual. The distinction between society and the individual is entirely arbitrary misleading and dangerous. As Sampson comments (1981, p 737):

> ..reduce conflicts to subjective misunderstandings, to misperceptions and psychological factors within the individuals, serves primarily ideological functions by eliminating from our analysis the contradictions that exist amongst groups in the real world.

Twisted Humanism

Humanism is the view that all people should have the same rights and privileges. Twisted humanism installs the belief that inequalities are the direct consequences of differing individual powers and efforts. The inequalities are explained away in psychologically as a lack of resolve, or lack of achievement motivation and generally a weak character. Once again such an explanation of inequalities is hardly rational. The logic of competition and profit requires that you can only have so many foremen in a factory. To pay a higher foreperson's wage ten workers are needed to be exploited at a greater level. In a factory of

one thousand where one thousand have high achievement motivation there still can only be so many foremen. In advanced capitalist countries some people make a lot of money but to do so a greater number have to be exploited whether in less developed countries or in the home economy. Yet flawed humanism describes those that do not make it as lazy, incompetent and not deserving of what others have got.

Psychology's relationship to society is to formalise perceived weakness and label them as specific to the working classes. Undoubtably people do have all that psychology has identified and described, but it would make no difference if they all didn't have weak traits; there can only be so many successes (economic and relative) to failures in capitalism for capitalism to survive. That is an internal contradiction of capitalism, one of many Marx has identified. Sennett and Cobb (1973, p 258) indeed believe that: "Psychology of personal worth has come to have its uses in maintaining inequality and economic productivity along class lines." In essence, what Psychology has identified as the means to overcome inequalities, namely, inner intellectual growth and development, will not rid the world of inequalities. Pragmatically, the meaningful link between poverty and inequality is money. Consequently if a poor person becomes wealthy they no longer suffer the disadvantages of poverty, mental or physical. By working to remove inequality psychology could achieve far more for mental health than a mentalistic analysis. Indeed, psychology far from identifying the correct causes of mental anguish, gets things around the wrong way. Psychology believes the consequence of the maladaptive mind is an increase in physical and material deprivation. The reality is however that those deprivations in the real world are more likely to be causing the deprivation in behaviour and thought. Psychology as a tool to help people is therefore defective at its very core and needs to be replaced with a pragmatic and realistic science which addresses the fundamentals of humans lives; alienation, false conciseness and their economic causal base.

G) The Training and Education of Psychologists as Part of a Social Structural Process

The training of psychologists provides another aspect to the function of psychology's relationship to society and another reason why psychology replicates the status quo. Psychology fosters in its training the attitude that using the scientific method gives a certain way to get the right results. The 'right' method is the Hypothetico-Deductive as discussed in chapter one. Therefore, a failure to display competence in this method is to fail to gain entry into the profession and to limit severely the chance of publication in a journal. To fail in these regards is to fail to have a voice in the process of determining psychology's path. Using only the accepted methods will gain a student the most reward and understandably the student will accept those methods as best. As psychology itself teaches, how you act is how you think; actions shape attitudes. As Coons(1990, p141) maintains: "filling students with today's "facts" is training them for rapid obselesance".

The student of Psychology is not taught that alternative and critical forms of thought are legitimate sources of knowledge. Indeed rather than teaching its pupils to be critical of the method they use, psychology teaches them to be critical of theirs and other's work in terms of how far it has deviated from the methodologically accepted way of producing knowledge.

The student that does not follow the prescribed topics and courses and come out with the prescribed answers will be seen as unsuitable for professional courses. As Wiessman (1973, p 105) notes, this leads to a situation where; "...the student's recognition and acceptance of his subordinate status stem not from respect from his professor's intellect, but simply stated from an acquiescence to authority." This is more or less the result of a university system which mirrors and is part of the oppressive and antagonistic society. But how university departments can give the students the freedom to choose and investigate their own interests is not an easy question to answer. For the faculty cannot simply wave a magic wand to cope with limited funds and large numbers. Unfortunately this material pressure produces a scenario where success and survival depends on the numbers of students, which increases number of the faculty and subsequently the amount of dollars it receives in funding. Hence, psychology becomes a production line where the type of course taught is largely determined by the dollar not

by what will produce the best students and work. Course will be chosen due to their ability to draw numbers.

Students are taught to ignore the problem of using college students and rats as subjects, but this does not remove the problem. College students make up the wealth and vast majority of human subjects. Now, nearly all researchers report this as a weakness and pay tribute to the problem it raises. But it seems as though this problem is viewed as an old established dilemma where nothing can be done, and that therefore, the attitude becomes one that nothing needs to be done. It is clear however that even if the problem and bias is acknowledged, it does not lessen its effect. Psychologists can go on about it forever but until something is actually done the problem continues. In my own training I was told not to mention the reliance of students as a criticism in my discussion as many share the same weakness in using a student sample and that it has all been mentioned before. This was unquestionably accepted as the attitude to adopt.

Students whose strengths are computers and statistics are more likely to feel at home in psychology than those who would pursue theory in Psychology. Jones (1986), identified a change in students orientations to research that occurs during years of graduate training. He believes that psychology confers honour and reward on those that conform to the accepted norms. Naturally students respond and play the game as it is meant to be played, until by the PhD level the Psychology department has graduate puppets on a string.

Naturally such a system of training lends itself to the Marxist ideas of alienation and false consciousness, and university work now seems to equate with work outside the university. Feelings of alienation towards work performed at university would seem well established as the students have lost control of their work and the work has become external to the worker. Subsequently the work does not satisfy the individual and the work develops into a oppressive experience. Weissman (1973, p 109-110) states the following about student experiences: "Though alienated they do not comprehend the source of their alienation. They accept the alienation and conformist patterns of the university as natural, inevitable."

It is surprising that despite the problems in psychology, little attempt is made by psychologists to address them. Indeed the psychology of

psychologists, fascinating and interesting as it would be, is rarely considered. Psychologists are, it seems, unable to apply their own concepts of group think with its pressures of conformity to themselves. Kressel (1993, p 49) has an outline of what a student of Psychology will realise is what will get them the greatest success.

- Young Psychologists should stick only to one sub- field, and one only.
- Disciplinary criticism is an 'old mans game' to be encouraged only in those who have paid their dues.
- A good experimenter is one who can demonstrate a good effect no matter how small.
- The students who do research on a 'hot' topic will get the jobs.
- High level statistics are preferable to careful data collection and creative research designs.
- Psychologists and Scientists are the only ones who say anything worth knowing about human social interaction.

The university with its fundamentally transitory population is ripe for getting the 'squeeze' from society. Students now look upon the world of work not in realistic, critical terms but in more favourable terms where they, while being exploited, are going to be paid to do work, not pay to do work as in the university.

The mass lecture system is the only possible solution touted for the problems faced due to rapidly increasing numbers. But only at the expense of the student. The students are processed in large numbers by the far from perfect lecture. The content of the lecture course consists of a lecturer who must concern themselves with three or four lectures a week using the same notes from year to year with only minor changes and until what they teach is shown to be outdated, and changed again to a modified form. The marking and laboratories are handled by graduate students. From here it can be seen that the ideal of high quality education has become the nightmare of standard questions and standard answers and all real intellectual contact between teacher and student is lost. As a consequence relative capabilities and interests of the individual student cannot be developed by the lecturer. The only benefit of such numbers, of course, is financial. Students have become

the product, a means to an ends, not an ends in themselves and although this is cynical it is true. Students in the past may have been shocked at such a system, but now are used to the idea that intellectual relationships amongst people are subservient to material concerns. What does the future hold if the pure intellectual relationship between students, student and lecturer has been so degraded already? Weiss (1973, p 9) believes that "The student is pushed toward a mindless apathy all but his career." Thanks to internal assessment the large increase in work quantity does not give the student or the lecturer time to think about their work to the same degree. The old system with its big end of year exams was flawed, but has been replaced by internal assessment which has its own flaws. Not only does internal assessment have new flaws, but the old disadvantages of the previous system still remain The massive amount of output from students work is basically a waste. With internal assessment it is the hear and now the student can only be concerned with, forgetting all of last fortnight's crammed factual information. As for the textbooks, they are but a simplistic parade of trivialities. They simply describe and oversimplify, where debate and counter debate is needed. Their obvious money spinning capabilities to a captive audience provide the real reason for their existence. Weiss again (1973, p 100) "We grade students as we grade beef with no thought for improving the product as we stamp the product."

The university itself is a system which determines the class and social position of the individuals in it; certain groups of society have the motivation and expectation of success instilled in them from childhood. A relative material advantage ensures achievement even before getting to university.

Are University Staff, Teaches or Researches

There seems to be an inherent problem of whether psychologists in universities are there as teachers or researchers. Once again no one seems to give much thought to the matter of whether lecturers should

be both or just one or the other. But as Weiss (1973, p 102) points out the problem remains:

> We hear it said again and again that there is no conflict between research and teaching. This would be true were it not for the simple fact that undergraduate teaching requires wide ranging, but not superficial generalists; whereas the only way to schololary fame and higher wages is through steady and constant focus on a narrow area.

Indeed McNicol (1988, p 278) has a more cynical view of the priorities of most psychologists in universities; "Few of us embarked on an academic career because we wanted to teach." There is a danger, therefore, that the staff will place more emphasis on their research and find that they can kill two birds with one stone by teaching their research interests rather than teaching the students a more appropriate content. With such strong emphasis on research it is more convenient to teach what they are researching. Howard et al (1987, p 50) sums up what is important between research and teaching when they say "...recent measures of departmental quality have been based solely upon counts of publications in the American Psychological Psychological Association." So, instead of teaching receiving at least an equal emphasis, the amount of research published in the 'right' journals becomes the overriding concern as it determines psychologists financial position and job placement.

Generalist or Professional specialised

Should psychology as a discipline encourage a broad generalist approach or a specialised approach? The problem seems to be that, bearing in mind our subject matter and the desire to help people, both seem equally appropriate. Arguments against more specialised courses include the observation made by McNicol (1988, p 278) that; "Integrated Professional courses restrict the types of student they

attract. If we are to be effective we should draw our members from the widest social-economic mix possible". The Professional course also tends naturally, endear a 'them and us' mentality. In psychology this spells danger as treating a fellow human being as a lower being than yourself tends to create problems. It may be acceptable to be as arrogant as you like with a piece of inert matter or a patient unconscious on an operating table as long as you are efficient, but in psychology the subject matter knows, understands and reacts to such elitism.

Even if a psychologist specialises narrowly they, (to be effective) will have to see how this specialised area of their study fits in with the larger picture and understanding of their society. If they are a Generalist this is not a case of learning all things for all people. It is rather the ability to see how the knowledge they produce effects the larger world and society, which requires foresight and training. Yet even if psychology was to be a general, science this does not mean there cannot be subset organisations within psychology. There is a need to have an overview organisation to tie together the common interests in Psychology. The American Psychological Association is intended to be such an organisation, but as the report to the Science Advisory Committee stated (1990, p 876):

> Many academic and research members feel A.P.A. policies, statements and actions consistently ignore scientific evidence, or imply such evidence when it is clearly lacking.
>
> When the A.P.A. makes decisions science is not what matters, but proportion of the vote, percentage of members.

The APA seems not to have that necessary backing to enable it to unify the discipline. The problem is that psychology is evolving at such a rapid rate that there is no effective machinery that can guide the combined power of psychology's parts rationally and with enough agreement. Such rapid progress can be visualised thus: if you would imagine the fingers on a hand moving forward but expanding outwards

at the same time.....The pace of change is now such that only narrow strategies are capable of making progress. We need sciences and parts of sciences which explore the area between the fingers of the sciences,, not only the desire to push the fingertips further out. Furthermore it takes a lifetime of study to push the fingertip a little bit further outwards and might have lost the capability to know all relevant information between the fingertips to make the necessary breakthroughs. Is the human brain just simply incapable of doing that? There is a need for somebody to get the information from all separate branches of science together again. The lack of a coherent attempt to do this is a reflection of the emphasis given to production of knowledge rather than its organisation. Indeed, there appear to be few attempts to organise knowledge in such a way that its relevance to practice or to policy becomes apparent. Yet here is psychology's great chance as the natural performer of such a role. The effect of this effort of investigation would be twofold:

1. Psychology would lose its physics envy and stop trying to be a physical science something it cannot be. This would earn it respect from other sciences and the public at large.
2. And it would fulfil its necessary, pragmatic and natural role as a science whose relationship to both society and its fellow sciences was powerful yet helpful to the common good.

Psychology has drawn its emphasis away from a serious concern with stimulating an informed, general and critical awareness of our society and culture amongst those it teaches. Psychology has done this by being highly refined in specialist knowledge to make itself and the individuals within psychology marketable for university employment only to be required to teach generalist courses at university. These generalist courses will inevitably lead to psychologists teaching views they may be at odds with, in which they hardly can be expected to be unbiased and provide a motivated display of teaching. As a result

psychologist's marking and teaching will reflect this reluctance and the students study will be consequently affected.

Interdisciplinary and Cross Disciplinary Psychology

Interdisciplinary psychology has its strengths and weaknesses as well as *cross disciplinary*, but by moulding the two perhaps the best of both worlds may be realised.

1) Cross discipline attempts to link specific psychological and social structural variables.
2) An interdisciplinary strategy focuses on phenomena that exist at the intersection of sociology and psychology.

The area in psychology that promises the most in terms of interdisciplinary research is social psychology, or rather more cynically it is the mostly obvious candidate for the role. Social psychology is potentially the best place to bridge the gap between the analysis of the society and the analysis of the individual. Therefore defining social psychology simply as the study of social influences on the individual is inaccurate and inadequate. Psychology must learn to recognise that individual psychology is the cause as well as the consequence of social structure. There is a genuine need for a social psychology that explores the dynamic relationship between psychological and social systems. A good start for such a discipline would be to explain why this discipline has not be developed successfully in the past.

Conclusion

How psychology manages its relationship to society seems to be a question of maintaining dignity while somehow remaining pragmatically viable in the real world. The capitalist world's influence becomes readily apparent in a system where there is great demand for places in limited courses. Hence the paper at a university becomes a commodity, a scarce resource where limited numbers are allowed in. The unavoidable result is the spectre of elitism, differentiation between psychologists, supply and demand and power relationships and a mirroring of the capitalist system.

The position of psychology today owes itself less to the contributions of psychologists to society than the large numbers of students enrolling in it. The danger in psychology having such a large amount of students is that these numbers will determine what is taught subsequently producing not what is the strongest form of psychology but the most popular. Once the numbers go, the house of cards psychology will have built will have nothing tangible to stand on. And if the numbers never go? Psychology is still not being effective as it could, in that does not apply itself to the problems that are most pressing to human society but rather those that answer the needs of funding. The most pressing needs of society I would argue are economic, but their causes are also economic. We as a science are just as vulnerable to the economic causes if we become a pawn to them. A psychology motivated to get as many students as possible to gain economic security will become part of the problem rather than source of the correct answer.

H) Conclusion

The education of Psychologists and the educational institution are part of a economic system. The educational institution and experiences are moulded by this economic system. Specifically the educational institution at all levels can be summarised thus,

- fragmented levels of power, control and payment.
- Education produces people ready to fill different levels. Education teaches people that they can expect to fill a certain place in the marketplace, usually at an equivalent level of their parents, and prepares them mentally for both mundane and exploited roles.
- Education reflects how capitalist work is organised.
- In particular subjects are divorced from each other, and work tasks are set for each of them. The pupils have no control over the work set. What and how they will learn is determined by others.
- Students do not learn for learning's sake but to get good grades.

- Sex, race and class all give different schooling experience. The status quo is maintained, as economically exploited groups are exploited in education.
- Working class school's pupils are trained for obedience to authority. In lower class schools there still is a need for pupil leaders and achievement relative to others. In working class schools however this achievement is looked down upon by pupils whereas in upper class schools such achievement is desired. The lower class attitude learnt is not to stand out from the crowd, one will only be cut down. The upper class attitude, which is learnt, is to stand out from the crowd and achieve because you deserve it. The terrible irony in these features is that the students in the lower class enforce them upon themselves.

Schooling and education transmits inequalities across generations. The logic of capitalism means that people must largely follow in their parents footsteps. Education prepares people for this by justifying in the minds of individuals the inequality of society and how they fit into it. This justification is maintained as long as people believe *naively* that education gives everyone a fair chance to prove their worth; and that privilege and distinction stem from fair competition in the educational arena. This is an example of false consciousness which replicates the status quo. Overidingly career aspiration, personal definition of success, wealth, marital status, age, are the relevant factors in Psychological science rather than scientific concerns.

Chapter Five
Problems in Applying Psychology

A) Psychology Cannot Examine Itself Critically in a Meaningful Way

Psychology has not developed its potential and the positives that at first attracted people to psychology. Psychology even largely ignores the lessons that it once learnt.

Freedom Verses Control in Psychology

Is the autonomy of science a privilege for the elite or a need of society itself? Is science unrestricted for the betterment of the whole of society or just one aspect at expense of the others? Should a healthy society be able to avoid controls over science? These are the issues surrounding the question of how free scientific activity should be. Control seems unavoidable but the qualitative motivation of those controls is crucial and they should disrupt science as little as possible while providing adequate protection for those they serve. A qualitative compromise seems the only pragmatic and sensible approach between avoiding destructive social effects and efforts to promote scientific creativity. The danger of beaucratisation must be ever present, as without sufficient freedom the Psychologist will not produce knowledge and techniques of benefit for society.

The controls placed on psychology should then encourage science which helps society's members, but discourage and impede science which negatively effects society. Unfortunately under human control the areas to restrain are determined by social-political attitudes that reflect the most powerful ideology. Or a tangled buearucratic morass results where the people making judgments are snowed under, therefore allowing things to slip through that should not. Because the benefits and dangers of research are often unforeseeable upon *who* should the burden of proof fall? At all times the decision and process should be enforced in the open with access to the decision made to any that might want to know. There are inherent and greater dangers of keeping things quiet.

Control would seem even more crucial in Psychology than other sciences as the restrictions on becoming a Psychologist only practically

extend to remaining out of prison and being alive. I suggest there should be more restrictions before being able to use the title of psychologist

The goal of control is an effective yet responsible science but at what levels and what controls should be implemented is not so easy to decide. Firstly, the intent and motivation must be simply to encourage the good, discourage the bad. But to know with foresight which is which is difficult. What *is* clear however, is that the dangers of human ideology and power and the relationship of society to science, will play its part in determining what science will be and what it produces. There is no such thing as a group of independent scientists who operate only for science's sake.

David Baltimore (1973, p 43) has this to say of restricting science: "Put it this way, the penalty for trying to control lines of investigation seems to me greater than any conceivable benefit." Yet Metzger (1978, p 110) believes that, "In the end the participants in this enterprise would come to realise that the wisdom needed to regulate science without destroying it has to be gradually acquired, and from many sources."

So the arguments for freeing up and for restricting science are both strong. The old rationale of progress, however, is no longer always rational and logical, as progress is not always good. In fact progress, development, advancement, all the words that are used to describe what science does, are positively loaded. There is no neutral term that seems to describe what science does, all the words are loaded to equate scientific work with a common good.

Baltimore (1973) states that restricting science is bad because it is natural for the human to be curious. *But restricting science is not a case of knowing ourselves less, it is a case of knowing ourselves well enough to judge what is good.* Brooks (1978) is another proponent of freedom of inquiry. He believes that the peer system works very well and there is so much evidence to support it that he fails mention any of it because there is so much of it he decides there is no need to discuss it any further. Brooks however goes on to say that judging which applied research projects are worthwhile is far harder. Nelkin (1978 p 191) cites a survey of 800 scientists, in which, "77% agreed that the pursuit of science is best organised when as much freedom as possible is

granted to all scientists." Of course most would agree with that, but would they say the same if they were asked 'do you want science organised this way', or, what is the best way for science to be organised if societal repercussions are taken into account? Indeed 'As much freedom as possible' could mean very little freedom. Organising is also not necessarily the same as doing. Nelkin (1978, p 192) points out further that no matter how noble a concept freedom of inquiry is, that that is not necessarily enough of a reason alone to bring it to fruition:

> "The concept of freedom of inquiry has a venerable history and is widely taken for granted, but there is no constitutionally guaranteed right to pursue knowledge or engage in scientific inquiry."

A person of intellect finds the position of unmitigated research and investigation into ourselves attractive, logical and rational. A person of wisdom realises we are not ruled by the rational model and consequently we can reflect and change our destiny that our investigation can be qualitative and that we should stop to think whether progress its good or not. Likewise, psychologists can also decide to progress or not, not solely for progresses sake. In science total freedom of thought should be retained, but that does not extended to total freedom of investigation. Furthermore controlling science does not always mean limiting science, it can add to it.

Conclusion

In the past all progress was seen as inherently good. Now it is known that scientific progress can be harmful and Psychology through an understanding of the human is the best equipped, if somewhat poorly equipped science, to address this change in perspective of science. As technology increases more rapidly, there is little opportunity for evaluation of its effects on society and the old institutional forms seem incapable of dealing with the modern world demands. The old deal between science and society was that society would get certain material benefits from the work of researchers and in

exchange the scientists will get considerable administrative freedoms and finance from society. In that agreement the two sides were distant each giving up things that the other side did not really need. Now the public gives up substantial treasures and exchange requires a much more mutual involvement and understanding. The inexorable progression of science is now limited and under threat from its relationship to society.

Psychological truth, as all scientific knowledge, is derived from a social context and is social in nature, so psychologist is flawed and limited in their ability to apply themselves to problems. Taken one step further, the human is pretty bad at analysing human phenomena, in fact you probably couldn't get a worse tool to analyse the human than the human.

Psychology takes the path of least resistance by removing the possibility of appreciating its own relationship with society. The powerful social structural influences in society encourage psychology to develop new knowledge. But psychology does not debate whether that knowledge is right or wrong, useful or dangerous. Psychology only examines its knowledge production in a scientific way. But like all things humans create, scientific theory has a social life and existence, and so this scientific examination while being vital, is not by itself complete or adequate. Psychology must learn to be skilled in political and economic analysis to judge the true social influence of its knowledge. Even if scientific knowledge was purely scientific such knowledge would be of limited value as Prilleltensky (1989, p 799) comments "Social and political predicaments require solutions of a social and political nature."

Basically psychologists are not addressing the problem of the psychology of psychologists, or for that matter the sociology of psychologists. Yet looking in the mirror, as Scriven (1980, p 68) aptly puts it , "is an essential step for improving ones appearance".

B) Psychology Cannot Help People That Come to it as Well as it Should

Progress in psychological science has been clearly unable to keep up with the public's demand for a source of expertise in their problems. The public instead look to others to solve their most pressing concerns when psychology has a valid but by no means potentially dominating input. The problem is to create a psychology that can deliver solutions to most important problems humans face, and then in turn change the public perception of psychology to something that can provide solutions. To the limited degree psychology can already help people meaningfully, the public is generally misinformed. The public view of psychology largely consists of a stereotype, and although often undeserved, it is a problem which is inadequately tackled by the psychological community.

Psychology almost entirely expends its efforts in treating the *symptoms* to help deal with the existing culture. Clinical practice reflects these this strategy, and so is unable to change the causal origins of the problem, thus becoming part of the problem itself. Psychology reacts to rather than anticipating these aspects of society which produce the problems. By avoiding a directive role with regards to social problems, psychology inadvertently upholds the status quo and helps to maintain the stability of the processes that bring it credence and financial stability.

Psychology, because of its role as replicator and unconscious acceptor of the status quo, has applications which reflect this relationship. For example in world war two psychology did much to help the war effort and supported the powerful social institution of the military. Psychology did very little, however, for people in society and it did not investigate why people were killing each other and what it could do to stop such events.

Psychologists as conforming and conventional members of society are the ones who identify and interpret behaviour as deviant. Psychology does not analyse the ordinary person or the elite but the marginal members of society, which reflects its role as replicater of the status quo. The status quo, the people and institutions with power to which psychology belongs are therefore able to determine what is deviant and what is accepted behaviour without coming under psychology's scrutiny themselves. The potential for psychology to label

the enemies of the status quo as deviant is not necessarily a bad thing, but there is no debate over whether this should happen.

C) Psychology is Hamstrung when it comes to Helping Those that Need it

Due to psychology's relationship with capitalism, the needs of the individual are not being met. Or rather they are being met in a way capitalist society deems proper. This is reflected in the psychologist's methods of valuing little what people as subjects and patients have to offer, such that they cannot even be trusted to give an accurate report on their own mental conditions for example. The irony is that the psychologist's interpretations of what they observe are no better, but yet are not called into question because they have followed slavishly the a methodology of science that claims all personal biases can be removed.

One large part of the problem is that in developing a scientific method for itself, psychology, has produced a language which, for the ordinary person is hard to understand. This jargon was developed in response to the logic and methodology of discovery. The logic of science demands that in categorising language needs to be used in as clear and precise unambiguous a manner as possible. As a consequence jargon was then invented. Unfortunately and ironically the jargon produced has been more a barrier to understanding than a help, as jargon has functioned as a means to exclude rather than to include as originally intended. The actions of creating jargon started out in the best interests of communication. But now such jargon removes as many people as possible from communication. What use is a psychology when people cannot understand what it is saying? It is very important I believe for psychology to be understood, because it is only within the individual concerned, that the power to help themselves is located. Psychology can change the symptoms or force the individual to change but what has *really* been achieved. The patient or citizen is unable to realise psychology's potential because they do not understand the principles of treatment and are treated as inferior for this understandable lack of comprehension. The ensuing power relationship established between psychologists and 'subjects and patients' takes its toll in the

effectiveness of the discipline and betrays the real reason behind the jargon. As Koch (1980, p 49) outlines it "My view proposes a relation of partnership between the psychological studies and the human race, rather than the patronising handouts of counterfeit knowledge."

In physical science and medicine jargon is not as big a problem, but for psychology which relies upon interpersonal communication, it is crucial. An example is the unnecessary and rather bizarre use of scientising something for the sake of making it seem more pompous and grand but only having the effect of producing an unnecessary barrier to understanding.

The '*The Fishbien Model*' is an example.

$$B=B1(i=1\ bi\ ei)\ W1 + (J=1\ nbj\ mcj)\ W2.$$

where,

B =overt behaviour.

B1=intention to perform the behaviour.

bi =belief that performing the behaviour will lead to consequence.

ei =evaluation of consequence.

J= individual.

nbj =if the perceived expectation of referent group or individual.

mcj =the motivation to comply with.

W1 & W2 =regression weights.

nX =number of salient consequences.

mX =number of salient normative beliefs.

This equation is supposed to represent simply the idea that peoples intentions are influenced by what they think will happen, if they do what they intend, and others opinions of these actions.

This idea has been transformed into scientific language, but I think it is no better for having being so coined. Psychologists do not need a pseudo language and jargon to distinguish themselves from the public, the public already recognise psychologists as being distinct. Psychologists must be clear to the public otherwise by definition they will fail. Psychology is not like a physical science. In psychology the relationship to the subject is altered by using jargon terms and if the

relationship to the subject is altered so is any experiment that uses them. If the patient does not understand, the relationship becomes one of power. The desire of a person to gain prestige at the expensive of clarity and understanding is an example of someone who desires the accolades but cares less for helping those that need it. The above can only belong to a psychology which is uncaring and aloof.

Psychology appears at times to help minority groups, but does so largely on the grounds of fashion. From race, to class, to gender as each category becomes fashionable psychology gives the appearance of trying to help those in need. But what is not incidental is that such efforts are rewarded financially, and the particular group in favour is quickly dumped for a more financially advantageous group which is in vogue. To find adequate solutions, such problems may take a matter of months years but decades to formulate adequately. In a world of poverty, starvation, war and exploitation one would think the only psychological problems facing humans, (if one were to use Psychological research and efforts as a gauge) are those of memory, perception and biological processes. Braginsky and Braginsky's (1974) contents analysis of psychological publications from 1885-1971 found almost no mention of the effects on people of the world wars, the great depression, or the Vietnam war.

D) Psychology's Applications Cause Suffering

The topics researched and accepted by journals are in large part not what people are interested in. Newspaper articles are what people are interested in. If Psychology researched what fills our newspapers it would be executing relevant research. This does not seem the proper or credible way to determine research areas, but only because it does not pander to the pompous and self important elements of psychology. Psychology in its applications has largely dehumanised the human subject. This rather insidious feature of Psychology has been defended, albeit covertly and unconsciously, in the interests of making psychology a 'proper' science. This of course is patently not true *for we cannot, by making the human anything but human, improve our study of the human.* Perhaps the real 'psychology' behind the psychologist's

motivations for this are less than scientific. Namely that, psychology is performed by everyone, everyday and so psychology as a result of its desire for institutional grandeur has had to somehow separate its study from common everyday psychology. But since everyone uses the everyday kind of Psychology this presents a particularly tricky problem for psychology if it wants to somehow to convey its institutional psychology as being superior to the everyday kind. It has found the solution by reducing its study of the human to something that is not human. How humans think, are aroused, are motivated, even the humans themselves, are seen in non human terms. People to the psychologists are respondents, the independent and dependent variables of the experiment, or even the unwanted variable or noise when trying to find out about humans. In this way psychology has quite successfully achieved the goal of never being recognised as the common everyday psychology. It has also quite successfully removed the chance of becoming an effective science, as it happens, by removing from its sight, (in disgust one might also say) the human being when investigating aspects of the human being functioning.

E) Intelligence Testing

The testing of IQs represents a complicated relationship between psychology and society that needs to be viewed in broad historical and sociological terms. A belief which is most prevalent in psychology is that by computing the intelligence quotient of someone the psychologist can know something indelible about that person. Psychology views intelligence as inherent in an individual. It also believes that there is a close relation between intelligence and achievement and between intelligence and its measurement. However, it is wrong on all counts.

Psychology has not even satisfactorily answered the question of what is intelligence, and what it is that IQ tests actually measure? In fact the concept of intelligence is clearly a *social* intervention reflecting a social set of values. Intelligence is not a *thing* in the individual; it does not reside within the individual.

Classical science has had a narrowing influence on the definition of intelligence. Science describes generally how people ought to think, not how they think.

Psychology's applications in institutions such as the justice system, the educational system, psychiatry reinforce capitalist notions of the individual's role in society. Psychology reinforces the capitalist role of the individual in the above mentioned institutions through education, evaluation and enforcement. Not only has psychology come to accept such roles as appropriate and normal, but all individuals whose socialised roles are thus effected come to view them as normal, functional and appropriate. Subsequently not only does psychology mirror society's exploitation of the individual but t mirrors the false consciousness of the individual. Rather, it is not such tools as intelligence testing themselves which are particularly dangerous or useful. It is however the motivations of the individuals using intelligence tests which makes them dangerous. For example, knowing a persons race means that you can not even remotely accurately predict his or her score on the supposed 'intelligence tests', such is the overlap between individual scores between supposedly 'different' groups extrapolated from their shared average. The value comes from such tests proving to be useful justifiers of segregation of pupils based on apparently 'inherent' characteristics. If psychology wanted an extremely accurate judge of who is likely to succeed in schools and be more intelligent why don't they just use parental income; it would do a better job. Any test is unjustified in its claims simply by time and situation limits. Kline (1988), makes a good point about the limitations of such tests. He comments on 'love' scales to investigate peoples beliefs about love, the statement with the greatest loading was "yes I would very much enjoy giving X a present", this statement being the most predictive of the subject loving X. The point being that even a couple of hundred items are only a small proportion of an accurate description of what it is to be in love. These scales do not measure love but only statements about love. Likewise intelligence tests do not measure intelligence but how well a person has been prepared to perform that particular test.

Psychology may have through intelligence tests discovered that genetics and environment both play a part in intelligence performance.

Yet, most importantly psychology has not discovered what environmental factors, and to what extent those environmental factors, have influenced intelligence.

Intelligence testing in New Zealand

IQ testing measures something we label as IQ or intelligence. The results of TOSCA, (Test of Scholastic Ability.), for example, which was used widely in New Zealand and is used to label certain cultural groups, namely Maori as having less intelligence than other cultural groups. Psychology's relationship to society here is on a knife edge. The alternative implications of such a results are:

1. The test is inaccurate; there may be no difference in intelligence between cultural groups. There may be a difference but we cannot confirm because of the quality of the test.
2. The test is accurate; there simply is a difference of intelligence between cultural groups which is innate.
3. That there is no difference in intelligence between cultural groups because all that the intelligence test is capable of measuring accurately is biased to favour certain cultural groups over others.
4. That the test accurately reflects a difference in intelligence in terms of the score, but that in itself only reflects a lack of resources and encouragement applied to one cultural group compared to another. So the test does not reflect any innate intelligence differences but a reflection of social structural forces and who those forces favour.
5. The test is accurate but measures something other than intelligence, ie scholastic ability or other socially acquired skills.

Clearly the different interpretations of TOSCA's measurements leads to taking different sides in an immense debate. So while it is a relatively simple matter to create an IQ test the implications of this test on society are considerable and link with other fundamental arguments. Psychologists when they favour one explanation of the test results over the others in effect sanction one explanation over the others. This professional sanction carries implications for the groups involved in society in terms of resources, attitudes, labelling and expectations. For

in the process of determining IQ, psychologists enter deeply the into the relationship they have to society. The intelligence test is based on assumptions of either a formal or informal nature. So that while the test will initially mean to be neutral and value free, it can quickly be turned into a rather nasty piece of politics, used by one section of society to control and justify that control over another.

If there is a physical innate mental inability in IQ score so what! Innate IQ can still be increased by the right environmental factors. It is instead used as an excuse to keep the downtrodden, downtrodden. It is a justification, because if there is nothing apparently that can be done, one sector of society is justified in getting more resources than the other. But the fact is that we most definitely can through environmental improvements improve IQ. If someone has a higher IQ than another, what does that mean? Does that justify any real distinction between the two people?

The idea that we can measure intelligence, that we can hope to measure the intelligence of something when we can't even agree as to what intelligence is, is patently ridiculous. At the point of testing unending and unaccounted variables run their course; for example is the test affected by a particular mood of the tested, the emotion of the person, playing a particular role (for example an anti-culture rebel), the level of motivation to perform tasks, what the environment of testing is, who gave them the test, and are they having a good day? Consequently the assumption that intelligence measured at that point is fixed and does not change is plainly unrealistic. Intelligence measurements should only been viewed as a very weak sample of behaviour which is likely to fluctuate. Intelligence tests are a sample of the ability to answer certain question of a test, not intelligence and the two do not equate. Indeed do psychologists really believe intelligence is that *simple* a phenomena in that it can be measured in one thirty minute test!

Ballard (1988) outlines numerous papers in which large discrepancies in IQ scores over time appear in the same children. This raises two points; either that IQ tests are not consistent or IQ is not consistent. Either way IQ tests would seem redundant as far as prediction is concerned. But that is exactly what they are used for, in industrial psychology to screen for future performance or in children to

screen for future performance. Why then do intelligence tests continued to be used? The answer lies with their ability as an efficient and quick way of justifying and achieving the social goals of capitalism and to encourage competition amongst human beings. The intelligence test is therefore a means and justification of exploitation and inequalities. IQ tests measure how well people answer questions in a test compared to others, that is all.

Dawinist ideas permeate the work of the Intelligence testers, the Tremain adaptation of the Stanford Binet is an updated form of the racism propagated by the likes of Darwin, Blake and Balton. Indeed Tremain is quoted in Kamn (1974, p 6) as stating about people in the 70-80 IQ group: "...children of this group should be segregated in special classes, they cannot master abstractions but they can be made efficient workers". It is no wonder then that Olsen (1988, p 36) comments: "It is through the use of the normal curve distribution that social ideology becomes embedded with the logic of psychometric theory". It is debatable whether lack of achievement is the individual's fault or that of the system that produced them. It is clear that people are born into the world with differing chances of success, due to social advantages of birth. Regardless of the proportion of blame that can be attributed to social disadvantages for a persons failure, psychology and education has failed to counter this proportion. Intelligence testing has provided a scientific underpinning to racist laws such as the prohibiting of interracial marriages. This was justified by 'demonstrating' links between IQ and criminality, sexual promiscuity and general immorality, which were all thought to be correlated to race. Karier (1976, p165) shows an example of such 'thinking', contradiction in terms that it is, when he quotes Thorndike:

> It is the great good fortune of mankind that there is a substantial positive correlation between intelligence and morality including goodwill towards one's fellows. Consequently our superiors in ability are on average our benefactors, and it is often safer to trust them than ourselves.

Such attitudes obviously maintain the status quo and propagate false consciousness. IQ testing has become an important tool of industrial psychology in particular. The tests are widely used to help companies identify and overcome problems in the work place. So tests of mental ability, flawed as they are, provide justification for restructuring which means hiring and firing, demoting and promoting. The good performance on an industrial test of IQ is often a standard needed for placement in a good job. As a result the attitude that 'people who do or don't make it do so deservedly' is justified, or that 'every child's education was tailored appropriately to their intelligence. The social historical circumstances and needs of societies which are expanding industrially are to allocate roles within a specialised and fragmented division of labour. IQ testing is obviously a efficient tool for doing this. In testing pupils for intelligence the comparative score to others is emphasised, whereas the emphasis should be on getting that individuals score higher.

Is intelligence genetically inherited or socially developed, and to what degree does each operate if it is a mix of both? If one thing is clear however, psychology does not know or at least agree to any one estimation. What we do know about is largely the social influence and it is this which we can address. Olsen (1988, p 48) points out that it is not coincidental that certain groups in society will do badly, and that it is not a question of random distribution but because of the social similarities that such groups will do badly:

> The access to knowledge and opportunities for learning differs systematically, and not randomly, amongst different class and race groups within the community. It is not inherited intelligence that will determine future performance.

Test items are based on factual knowledge and therefore it is a question of what has been taught, not how well people can think that determines performance. The advantages of class which mean a better quality of teaching are presented as endowments, gifts of nature, so validating the social order. There is as Ballard (1988, p 227) says:

> ...well documented research which shows that lower tests scores by children from lower socioeconomic groups are directly implicated in restricting both the educational and vocational opportunities of these children.

Such research as Gordon and Terell (1981), and Nash (1983) point to the futility of intelligence testing and Garcia (1981, p 1173) susinctly sums up the absurdity of a thirty minute intelligence test as a futile comparison of one person with another which continues "to serve social advantage under the guise of scientific truth." Moss (1988, p 73) goes even further to say that the test division in New Zealand has become a pawn of capitalism:

> The promotion of mental testing has often been seen in terms of the maintenance of social order in a capitalist society. But in the case of N.Z.C.E.R.'s excursion into testing it is probably unnecessary to invoke such deep structural explanations. For it maybe more simply explained by recourse to the most pragmatic of capitalist needs, the generation of revenue and accumulation of profit.

The ability of tests to make money is not unrelated to their popularity. But tests are only able to sell if they serve the market need. So it is not a completely a scientific influence which guides the development of the tests.

Otis as a Test Case

Otis was a test of IQ noted for its longevity in the New Zealand educational institution. The results obtained reflected the existing divisions in society and reinforced the notion that social position was the result of personal merit. The difference found between different cultural groups in New Zealand through the use of Otis could not be explained by class alone, but also by the fact that the test itself was inherently biased. A satirical test called Motis was produced at one stage, in which Pakeha children scored an average of 67.26 IQ points

whereas the mean for Maori children was 102. The reason for this gap was that the test used language and culture more familiar to Maori. The findings were reported tongue in cheek, but they outline and highlight all the insidious attitudes and problems of the original Otis test. In particular the (insulting and damaging) ideology which was behind explanations in the difference of score's between cultural groups in New Zealand on the Motis test is mimicked to copy those used in Otis.

> The authors feel that it is necessary to view the Motis results in an appropriate perspective. Of course the low performance of the Pakeha child does not necessarily mean that he is innately inferior, it may well be- and the authors would like to believe- that the pakeha child has the same chance at birth to be as highly intelligent as the Maori child. If the Pakeha's intelligence is inferior, his inferiority may be said to be cultural. In other words the Pakeha child may be thought of as 'culturally disadvantaged'. This means that the Pakeha child has simply not grown up in a home as rich in cultural opportunities as the home of a Maori child. Of course, the authors feel that it would be wrong to shame the Pakeha child by telling him that his parents haven't given him the advantages given a Maori child. After all, the Pakeha's inferior intelligence is simply not his fault. (Faulds 1988, p 106-107)

The belief that future tests are an improvement on Otis is fundamentally flawed. Current tests are just as bad because all tests are based on opinions and ideology's. They all come from the same flawed source- and try to measure something they can not.

The development of scaling, as recently seen in the school certificate in New Zealand, reflects the misguided attempt to be fair to pupils by trying to make them fit the normal curve. The belief that scores from exams will fit the normal distribution is nothing more than what amounts to philosophical fascism. If the normal distribution held true then why the need for such elaborate reworking of grades to make them fit the normal distribution? McNaughton (1988, p 26) observes how

such marking practices led the Committee of Inquiry of 1986 to conclude of such reworking of grades artificially to 'make' them fit the normal distribution:

> ...that it probably defies ready explanation to any except the trained evacuator or statistician. In particular, people find arguments based on the results of groups of candidates, rather than those of individuals, difficult to understand.

The fixed nature of marking in education goes against the goals of education to teach and change individuals to improve. That there should not be immutable barriers and inevitability about the results.

The problem in streaming children may not be whether they should be separated or not but what happens to them when they are. The educational package given to lower class children is not as adequate as that given to upperclass children and they realise it. They know from an early age at school that they are up against it, it is no wonder they fail or become indifferent.

The replacement test for Otis was the TOSCA (or Test of Scholastic Ability). TOSCA. claims in one thirty minute test to measure scholastic ability. This claim is highly questionable; for example if a child was allowed more than thirty minutes to improve their score does this really mean a reduction in ability? There is no justification that speed of mental functioning is a critical element of intelligence, and if it was what rationale is there for one particular time limit rather than another? What difference in IQ does five minutes indicate? What TOSCA is rewarding in terms of intelligence is the impulsive rather than the reflective thinking style in problem solving. Predicting school success is the supposed proof of TOSCA's ability to show scholastic ability, finding out the parental income of the child probably predicts the academic achievement of a child even better but this, but it does not make it a test of intelligence. TOSCA and other tests claim to measure intelligence but testers would probably be surprised to discover that Binet, one of the founding fathers of intelligence testing, believed that his tests could not measure intelligence. Rather he wisely realised that intelligence could not be encapsulated by a single number and was

against the idea that such tests should be used to label or place limits on a child's learning.

IQ Gains

Over the last decades there has been a relatively massive generation by generation gain in IQ. This seems to have been a great mystery to all as to why the world hasn't changed if people are so much smarter? In reality the solution seems so simple as to make those that struggle with the issue seem rather ridiculous. (Or perhaps they have not taken the massive IQ jump with the rest of us!)

Once again the material reality of the factory example demonstrates the point well. In a Factory there 1000 workers let us say, of which to remain profitable and compete with other factories successfully there can only be and needs to be 100 forepeople and 10 supervisors and finally 1 manager. If the next generation of people in the factory gain 10 IQ points or 20 IQ points there will still only be 100 foremen, ten supervisors and the one manager. Yes, economic rationalism, the material world as Marx wrote is in the final analysis determinant. The world as in the factory analogy does not change in its fundamental analysis. The periphery may change but is still determined by the economic base. Comparatively people are the same, in that some people are more intelligent some not as intelligent. Which means little in whether they are a manager a foreperson or a worker. The material environment determines that, more often than not, the child of a manager will become a manager, and the workers child becomes the worker. The meaningful relations of the world people experience stay the same across generations regardless of IQ. That is why the world has not changed, either there is no real change, or there has but that increase makes no difference to the economic realities of this world. If IQ tests don't measure anything meaningful, or anything related to future occupation then who cares whether the scores between generations change, there is nothing to explain. The rich still look, act, feel superior and expect to succeed, the poor still look, act, feel inferior and expect not to succeed. People say there is a mystery because in the world of intellect there is no noticeable change in grades. But economic institutions like all else remain tied to economic reality. There are still only so many scientists the system can afford, so many

students in course. The marker of an exam still expects there should be less A's than B's (they know that shouldn't effect their marking but it does none the less). Science, its methods, who does it, who is let into its privileged halls and its evaluations of theories and students, has less to do with intellect than it has to do with money.

Conclusion

From the study of IQ it can be concluded that:

1) Psychologists see IQ tests as a significant scientific achievement.
2) Psychologists believe that IQ tests have a significant impact on society.
3) Although the IQ tests were meant to only measure intelligence they are now used to distinguish between certain groups of people based on such factors as race and gender, yet not locating cause in the tests themselves or the social environment but something innate and non changeable in those they measure.
4) Psychologists do not differ from the more powerful segments of society; on the contrary Psychologists are interrelated with them as willing agents of reproduction of that social order.
5) Psychologists are unwilling to, and do not, ask the following question. In what way is my thinking and research related to where I am in the social order?
6) Failure to ask such questions leads to unintended results in the social impact of psychologist's work.
7) Intelligence is defined, it seems, by the particular way of measuring it.
8) Tests try to explain school learning in terms of something not learned.
9) Tests absolve the institutions and schools of any blame for lack of academic performance. On a more general level, perceived lack of intelligence is a justification for why the poor remain poor, and why the status quo is retained.

The IQ tests assume there a few very smart people, a few very stupid people and the majority who fall in between. This mistaken and baseless belief helps cause a failure of the academic systems to get the best out of its pupils. IQ test backers dismiss arguments about what intelligence is as semantics, yet semantics is meaning and one cannot be too careful about meaning, especially not dismissive. IQ testing is a small circle inside the big circle of Psychological tools inside the bigger circle of tools that reproduce society. As an example a children score lowly on a test, for whatever reason (and there is the problem that this is not accounted for), they are put in a poor class, they get a bad job or no job and their children are brought up with the same experience of diminished access to the same tools. Finally, the crucial lesson learnt from a social structural analysis of education is that intelligence and achievement rarely match ability; they are not the same.

Binet

The problem of psychology not being a meaningful help to others and it self is as Kline (1988, p 1) outlines, caused by its dysfunctional relationship to society.

> ..as it now has been developed experimental Psychology
> is unable to come to grips with what is essentially human.
> The further it progresses, the further away it flees from
> what should be the natural objective of psychology
>
> As a result of this, modern psychology is not only
> valueless, but actually corrosive, destroying any
> possibility of insight into human behaviour. Kline (1988, p 1)

The emphasis on the individual 'seems' right and proper and this is the conception and measurement of human intelligence which typifies psychology. When theoreticians developed their conceptions, they always had in mind the individual. Furthermore, when theories are validated a focus on the individual is used. The social context must

surely however be included in the model of human intelligence. Binet, for example, had an appreciation that the social contexts in which people found themselves affected intelligence scores. Binet thought there were two kinds of context;

1) the context in which the assessment of the individual was made.
2) the context for which the individual assessment was to be a basis for remedial action.

Binet also recognised a third variable, that being the social context in which people develop playing an important role, but he did not take it seriously, preferring to put it in the background. Binet, one of the founding fathers of intelligence testing, however had figured that the social context played an important part in the development of intelligence in children and also in the measurement of that intelligence.

It is all very well differentiating between those who can learn normally and those that can not based on intelligence. A political decision on their future is then made, however, which may put either high or low intelligence people at a disadvantage. For example, there was a social consequence of the scientific work of Binet. Binet was extremely pleased at the level of interest the American Psychologists were showing in his scales. Binet did not ask however why American psychologists were so interested in his scales, to do so is to ask what are the features of American society are, and the social position of the psychologists which made these tests seem so attractive to them. Binet could not as Sarason (1981 p 72), states see; "... the possible consequences for its work arising from his relationship to and understanding the network of groups and institutions of which he was a part." Or as Sarason (1981, p 73) also states

> Wolf is absolutely correct in concluding that those that came after Binet seized upon his methods and not on his thinking.
>
> But in one respect Binet was like the psychologists who came after him: he and they wanted to have some effect on their but had no real conceptual framework with which to

understand their society and their place in it.

Psychology has not taken seriously the question of the impact the psychologists place in the social arrangements and the bearing that such arrangements has on what happens to them as a people as well as the social consequences of the psychologists work. This is an intellectual failure of psychology resulting from ignorance of the social effects on its work.

Binet's scales proved so popular because of the nature of the society he found himself in. Sarason (1981), outlines these reasons as being

1) Feeble mindedness was seen as a cause of anti-social behaviour.
2) Immigration could have a massive effect on the social order.
3) The tests were very useful for deciding educational resource allocation.

So we can see how the intelligence tests were used to replicate the existing social structure. Screening to see who would come into the country was dependant on who did well on the test. People could only do well on the test if they came from a similar social knowledge background. It became a tool of replication as those that understood through privilege and familiarity would be selected for the same. Indeed those that use such tools in the past and do so today see themselves not as reinforcing positions of privilege and power but of defending a position of 'truth', and advancing the 'progress' and stability of society.

There is little agreement exactly, or even generally, what intelligence is. So it seems hard to image how we could produce tests to measure it. Conformation by studying the results is fundamentally flawed as the object of study, namely intelligence and whether a test is measuring it or not, can only be studied using that which is being investigated.

An example of someone having only their own intelligence to study intelligence is Spearman's g. Spearman's g was believed by Spearman to have been the constant unilateral intelligence factor. Yet analysing scores of many children, gives a meaningless average based on a

haphazard amalgamation of information. To assume an underpinning cause must explain a positively correlated phenomena is risky reasoning. From Spearman's research different conclusions can be reached. Spearman argues the brain is constituted by specific abilities underpinned by a general energy, it could also be assumed that the brain has almost no specialised structure at all.

F) Psychiatry and Clinical Psychology

The traditional rationale behind clinical practice is not a balanced or appropriate. The traditional perspective conveys three messages

1. The organisation or social levels of analysis and intervention are somehow peripheral to the real work of clinical psychologists which concerns the direct treatment of personal problems and acute cases of disturbed individuals.
2. That psychological skills are a form of technological expertise which can be acquired through training in the theory and techniques of applied psychology.
3. That the application of these skills is positively valanced and does not involve issues of power, conflict, morality or faith.

The complexities of clinical practice are such to render such claims as highly questionable. Treacher (1979), and Smail (1982), as two of many articles which imply that tacit knowledge which rules the everyday activities of the clinicians actually is different to the formal theories of the discipline and at times contradicts them. But if psychology is socially aware and socially competent the potential for help is greatly increased. For this 'awareness' to happen psychology needs to develop a more questioning stance toward the underlying assumptions of both the formal models of clinical psychology and the implicit knowledge governing all aspects of practice. The clinician's underlying biases and beliefs of a social nature should be able to be exposed to conscious scrutiny. The gap between theory and practice will shrink as the relationship between society and psychology is taken into account in terms of the social and institutional contexts.

The use of psychologists in criminal courts to give evidence on the state of mind of an individual is highly questionable. A psychologist could easily be found to support any particular and differing view of the same case. Their participation is nothing more than an attempt to clothe a decision in scientific justification.

The psychologist transforms the stereotypical ideas of society into clinical descriptions which serve as the basis of diagnosis. Two interesting studies highlight this relationship to society. Lee (1968), found that when a patient was described as lower class they were judged as being more mentally ill and given a poorer prognosis then when the very same patient was presented to another doctor as upper class. Efron (1970), found that the lower class patient regardless of the severity of the symptoms he presented was consistently judged to be extremely psychotic with very poor progress. An improved differential diagnosis was only found amongst upper class patients.

Specifically, there is a weakness with diagnostic categories when the social structural is not taken into account as their use encourages professionals to think they understand the disorders without looking further into the problems. Braginsky and Braginsky (1974, p 129) summarise such clinical practices:

> In short then the diagnostic labels in terms of historical, linguistic, and empirical analysis tell us nothing about the recipients, but instead reveal a great deal about diagnosticians and the society they serve.

In brief the diagnoses of Psychology are reflections of the values society endorses, not that this is necessarily a bad or a good thing. So diagnoses are not entirely objective reflections of the salient characteristics of those observed they also reflect the ideology of the observer.

Diagnosis is a major tool of therapy. It unfortunately usually brands the person approaching diagnosis as having the problem when clearly this is not always, or entirely, the case. Psychologists if they were to successfully cure all people of mental diseases and deviant behaviour would then be out of a job. Speaking logically, therefore, it is vital for psychology's own existence to continually remind society how big a

problem there is out there, so that the problem does not disappear. Consequently for psychology to thrive, mental health must not; in fact as mental health improves, so Psychology must become weaker. Therefore, the lucrative nature of the benefits of those who serve the mentally unstable is a contradiction. Unfortunately whether the knowledge that the more successful psychologists become the less secure they become economically affects the psychologists work is not investigated.

H) Conclusion

Underlying many problems is the basic difficulty of understanding between the public and the discipline. Traditionally psychology has put its impetus into investigating and understanding the public but there is also the problem of the public understanding psychology. This issue of public understanding is a crucial factor, Bevan (1976, p 481) agrees:

> The publics confidence in science will depend ultimately on an understanding of these fields as social institutions and the activities associated with them, as a particular way of looking at the world.

Solutions to the issues of communication will not be achieved by sounding off how wonderful peoples lives have become thanks to Psychology. The problem will not be solved by the prevalent belief that science and psychology simply know best, and are able to judge what is justified as good for the public. Underlying such an arrogant belief is the claim that in the quest for 'truth' investigators are neutral, and stand apart from the issue of moral consequences, that those psychologists, while performing Psychology are not part of the society they study. Throughout, history however, humankind has seen how one-sided approaches, whether political, religious or scientific, lead to abuse. Hence, psychology must take into account what the public think of its applications and the way it fulfils its ideals as a science. Physical science when researching does not always have this consideration to make but Psychology must always. Psychology's applications are capable of good and bad outcomes and psychologists as the instigators

of such activities are accountable to the society at large. As a consequence the belief of scientific neutrality and objectivity is no longer relevant to Psychology if its applications are to be appropriate.

It is unfortunate that Psychology has not remained faithful to its stated aims of helping humankind. Instead psychologists remain asocial while falsely purporting to be relevant to society.

Chapter Six

A Little Touch of Philosophy

A) The Arrogance of Humans

Science reflects human arrogance, because the 'after-the-event' analysis which humans have used predominantly throughout science has no *power* over the event in question. That is just because science may put forward a theory of the most *likely* way the universe was formed (the most 'rational' and 'logical' way), this is no evidence for how it actually *was* formed. Just because an event may be the most *probable* one to occur, this does not necessarily mean that it *will* occur. However, the 'most likely outcome' is automatically accepted, with blind commitment without realising this limitation. But, to predict an outcome correctly *everything* must be accounted for, which, of course, is an impossible task. The more that is discovered about something, the more questions are raised. Naturally, humans find this idea hard to accept. By the same token, there is no way of detecting whether or not a seemingly unsolvable problem has an easy answer. For to arrogantly state that some issues are 'solvable' and some are 'not', is to profess some greater understanding of the world. Psychology often as Koch, (1981) has identified uses a process of *simplification by denial* that denies the possibility that the most *unlikely* event may in fact occur. This technique leads to a simple-minded absolutism which, while reassuring, is patently not acceptable.

B) Truth

Their are a class of questions which humans must ask yet seem to be unanswerable rationally. So it seems inappropriate to try and answer them with the present conception of facts. And although psychology would try to claim they are not relevant, they are fundamental to its study, such as the mind body problem which underlies many of psychology's assumptions and practice.

Truth has turned into a weapon from its role in the past of enlightenment, It is no longer good enough to equate progress with goodness, truth has turned into a weapon, it can, and will make people slaves. This is due to the social structural consequences of new discoveries. In the past they were seen as enlightenment but now the consequences have seen as terrible. Truth and its discovery must not be seen as a purely scientific achievement. Yet truth does not become a useless or false commodity, but a more limited or rather pragmatic reality. Rather, truth must measure up to pragmatic and humanitarian concerns. Consequently without knowing its limitations problems arise. For example, there tends to be no way to differentiate between truth and power without a social historical analysis. Truth still is and should be, the aim for science. Who knows what the future holds in terms of obtainable truths but it is best to aim for this ideal.

C) Facts

Psychology in its desire to become a natural science has produced what it calls scientific knowledge, and this knowledge as in physical science is produced in the form of facts. At least this is the perception society has of what science yields and in a way it is correct. Science does produce facts, but they are not completely scientific facts, they are produced by humans and their observations. Consequently, science cannot ascertain for certain that these are the ultimate facts of reality. George Steiner in his book 'Does the truth have a future' outlines his concern of a system which produces truths, which contradict each other, even when using the same scientific method. It cannot be ascertained, therefore, whether these facts are the fundamental truths or merely an opinionated good guess. So even in science, there appear to

be no absolute truths, only reasonable approximations to what is tacitly believed to be an underlying, yet invisible truth. Yet science fosters the image and belief that it indeed does produce the fundamental and non negotiable facts of the universe. It is in reality merely equating a best guess with a scientific fact. Even if science does discover a 'truth', humans, due to the in built limitations cannot ascertain that what they have discovered is the truth and not just the scientific truth. Indeed in our human terms, can there not be essential irrationalities so that we can never grasp their workings because they could never make sense. Hence, we do not know that there are not many more universals, constituted with different matter and consciousness. The implication is that psychology may not be describing or at least understanding the universe, but rather making it up to fit our humanness. Subsequently our inherent limits mean we do not describe existence but what we can understand, what fits in with our social institutions of which our reality is one. Millar comments on this problem (1980, p 132): "...most of what passes for knowledge in psychology does so by virtue of its internal coherence, rather than by its correspondence to reality."

Psychology has even more shaky grounds for claiming it has discovered fundamental truths rather than opinionated human and subjective ones. It only has the brain to study the reality of the brain therefore bias is inherently built into its analysis. Further weakening psychology's position is its use of statistics which only give a probability that indeed what they are saying 'is the truth', is the truth. But nevertheless both the physical and psychological sciences portray their scientific facts as absolute, unwavering, and are fundamental. And it is here in psychology's relationship to society where the damage occurs, because the public at large, are also convinced that this description of science is accurate. Such a societal perception is achieved through indoctrination and ridicule of alternative thought. Yet such assurance seems very unwise and undoubtably not the true nature of discovery's of psychology. Every question of every test and exam I have ever sat I could disagree with the answer that I was expected to give logically and rationally. This accepted answer is the one I have been taught to give also on the basis of logic and science. Any disagreement is just as logical because logic is simply opinion. Logic is opinion because it comes from humans which have faults in that

humans are limited by the physical make up of their brains. Consciousness and perception are the irreducible bases of all knowledge, and science and as they are imperfect and so is knowledge. The irreducible source of knowledge it must be concluded is oneself. This does not make knowledge useless or unhelpful or even unscientific. There is a physical universe which is independent of my experience of it, as with the noise made when a tree that falls down in a forest with no one around to hear it. Even though we can have no objective *independent* access to knowledge and truth does not mean that it does not exist and that we cannot meaningful affect it for our benefit. The limitations of our science cannot be overstated, however. Our strongest form of proof is inter-observer agreement, yet it is difficult to see how this is going to yield non-biased truth. For, it is not logically possible to arrive with certainty at any generalisation containing more information than the particular statements upon which that generalisation was founded. As processes such as group think mean the majority can be wrong. Psychologists have no way of gaining another conscious, which is not human, to confirm that their conceptions of any part of reality are accurate. In a scientific experiment Psychology relies on the trained observations of humans in the methods of science, but the psychologists conception that they know what is reasonable, of what is possible. Psychologists as humans see only what they want to see.

Historically, humans are constantly amazed how wrong they can be, that people can fly, that there are atoms, that Newtonian physics will be shown to be inadequate; that in using the same methods to tell how old the universe is, we measure a star and discover we estimate that star to be vastly older than our estimation of how old the universe is; to believe the universe is infinite but yet is expanding, which means something that cannot get bigger, is getting bigger and exactly what would it be travelling into if it were expanding. To have learnt anything from the past is to have learnt that what is known now will be and is completely and fundamentally wrong. Science and society at large constantly laugh at how people in the past used to believe some ridiculous thing, but they forget, as though it is to threatening to remember, that in the future people will think the same of them. It is just a matter of time if anything is to be learned from the past that

current knowledge will be negated by new. The reason why such an arrogant attitude is retained is the influence of society on science and psychology. The fact that psychologists are human and that scientific institutions are social institutions which are full of social animals first and foremost. That psychologists both affect society and it affects them at all points of the scientific process. Psychology and science in general likes to have certainty and assurance, and a by product of this need for assurance and certainty is scientific arrogance.

It is easy to think of any amazing impossibility and formulate in imagination a potential series of events that will see that impossibility becoming reality. It can be also estimated how improbable that event is likely to be, but what is such an estimation based upon? It is based upon a social historical reasoning process which reflects the time and place in society that the psychologist occupies. Just because a human has trouble conceiving an events possibility does not mean that it is unlikely to happen in the near future, or that it has already happened. Subsequently what humans consider to be good judgement does not necessarily constitute good judgement, as they cannot ascertain the reliability of their own judgements using the very system they are judging.

Psychology could have a role of educating society to show how its facts are not universals but only best guesses, but its role has become to propagate the myth of the absolute fact that science believes it produces. So when Industrial Organisational psychology reproduces the status quo and exploitation of individuals it is seen as good, natural and unavoidable. Society accepts this false belief in the fundamental truth of scientific facts, and it serves social functions. One social function is to further the status quo. Is this process unavoidable or not? definitely not. Lucretius says,

> Give your mind now to the true reasoning I have to unfold. A new fact is battling strenuously for access to your ears. A new aspect of the universe is stirring to reveal itself. But no fact is so simple that it is not harder to believe than to doubt at the first presentation.

It is not argued, for example, that there is life on other planets, but that to say there is or not, based on probability or with any assurance is to me amusing, and paints the claimant a fool. We should continue to ask, no matter how dangerous the answer may prove to be or how ridiculous the question may seem to our present conception of what is conceivable. If our discoveries in psychology are seen as truths then those truths are leading to an ambush in the sciences.

Within society, the citizen is confronted by bewildering bigness and complexities and finds it necessary to defer on all matters to those who know better. (experts, professionals.). Indeed, it would be a violation of reason to do otherwise, since it is universally agreed that the prime goal of society is to keep the productive apparatus turning over effectively. In the absence of expertise the great mechanism would surely bog down, leaving us in the midst of chaos and poverty. Yet the paradox of such a destruction of the invulnerability of truth would increase consciousness and freedom of thought.

Science cannot provide the solution, ie an accurate prediction, to a problem containing three bodies, operating under just one force- that of gravity, even if we assume the bodies are exactly the same, that is perfect spheres, and that the force of gravity is precisely an inverse square force. So why then, do we think that we can predict the behaviour of billions of heterogeneous humans interacting with each other and in a substantially unpredictable ever changing environment; of which we are part of via forces which we do not understand. Consequently as an art of discovery psychology can give no lasting formal rules for the pursuit of truth which can be universally applicable. Yet Psychology still believes it can reduce the human to a simple structure.

From a pragmatic standpoint the search for universals in psychology is fundamentally flawed. The basis of human life, for example, must be error tolerant if we accept the process of evolution to be true. Nature would not be so successful if it was infallible, in terms of random mutations which prove beneficial, and so infallible laws of the human would seem unlikely. Indeed the oddities of the world and humans are not silly, they are crucial. That there many possible solutions to a single problem, may reflect the nature of the problem. Yet that same problem in a different situation with another person may need a different

solution. In the present environment of competition psychologists must criticise everyone else's solution and push their own. So the correct solution will not quickly or ever be employed. Worse still is the public position. How do they know which red faced shouting scientist is best, when they all say they are. Most psychological treatments do not work to the patients satisfaction most of the time. As Tolstoy stated in his epic novel 'War and Peace', multiple causation seems to exist for all aspects of human activity.

Facts are the outcome of a social world ruled by emotion, motivation and social meaning. Psychology to deal with the problems raised about truth ignores it as a problem. Psychology labels those that would discuss such problems as philosophers or educators rather than giving them the title of psychologist, as though somehow it is inappropriate for psychologists to talk about such problems.

E) Conclusion

A pragmatic realistic conception of truth, facts and logic should be adopted. It must be realised that knowledge cannot be understood absolutely. But this does not mean that psychology cannot know at all, indeed psychological knowledge can be useful and with the right analysis truth and power for example can be distinguished. When it is stated that something is true it should mean nothing more than a belief that it works. The absolute truth should never be claimed, but that it is the best that can be known. A proposition or theory should only be seen as true until a later proposition or theory works better.

Chapter Seven

Chaos

A) Implications to Psychology

> It has become increasingly clear that even the most rudimentary laboratory experiments involving people or animals are far more complex than simply the behaviours studied by the investigator. Braginsky and Braginsky (1974, p 53).

Chaos is a relatively new theory. It believes that due to the extremely complex nature of some systems *prediction is impossible;* ie if the initial starting measurements are not exactly right inaccuracies will inevitably occur in any prediction. In 'chaotic' systems even the slightest inaccuracy will rapidly lead to a state where no prediction is possible. Another tenet of Chaos is that while systems may *appear* incredibly complex, they may in fact be controlled by a very simple formula. This, as we shall discuss, offers both new hope and (paradoxically) new problems to psychology. By looking at a familiar topic under the new light of Chaos theory we may be able understand both the theory and that example better, and indeed many areas of human psychology fit the model of *bounded Chaos.* Bounded in the sense that the chaotic behaviour is limited by boundaries. For example between two points on line within which the behaviour is chaotic but cannot go past either point. So the chaotic behaviour is limited and therefore some predicability is possible. Chaos has implications for the power of psychologists because psychologists largely deal with

bounded chaos. For example mental illness often resembles a bounded chaotic system and so people are labelled mentally ill when showing chaotic behaviour. This chaotic state of their mind supposedly alludes to some biological, but yet to be detailed, in terms of observables, faults.

Chaos has shown us is that it is possible for nearly identical entities in identical environments to exhibit radically different behaviours, even when the underlying systems are extremely simple and completely deterministic. The basis of empirical science is undermined by such implications. Fundamental aims such as prediction and control are misplaced in light of theories such as Chaos. Certainly poor analytical results are to be expected when analysing chaotic systems with standard statistical methods. In short knowing an entity's state, its environment and the laws which govern its behaviour are not sufficient to predict behaviour, especially in a human chaotic system which is the topic of psychological study. So as Gregerson and Sailer (1993, p 777) believe:

"The customary goals of social science eg, prediction and control as systems of behaviour are sometimes, if not usually unobtainable". But perhaps psychology is in a unique position of all the sciences to take advantage of chaos. For its subject matter, as are all sciences, is deeply effected by chaotic laws and so reduces predictive power, this finding is particularly devastating to the physical sciences. For psychology however the loss is not as great, partly because psychology has not achieved as much, its predictive power is less, so psychology has less to lose. But the best implication for psychology, is that many experiments dismissed in the past as destroyed by 'noise', (that they were limited by design or execution of that design) may be legitimate data reflecting reality. Those apparent non-scientific random events are in fact potentially controlled by universal laws. It seems then chaos is suitably applicable to society; therefore psychology, as the study of that society and those in it, would also benefit from using a chaotic standpoint. Many areas psychologists 'bang their heads against' or put in the too hard basket are potentially ruled by simple scientific rules yet to be discovered. Problems and inexplicable results which have traditionally frustrated psychology can now be explained by chaotic implications. Even something simple may be impossible to discover

even with all the possible data. The pre-chaos ideas of predicability and only the stable results being good ones will have to change. This has implications to sciences relationship to society. For it is by no accident that empiricism mirrors society, and that determinism suits the capitalist work ethic. Chaos and its implications of an disordered universe and human action is not the model the powerful elites of society wants of its science. Science, of which psychology is part of, has the function in society of telling us that life is on the whole simple and predictable. That in fact if we have enough information we can predict and control and do anything. This is very comforting to the populace and to scientist's egos. In practice it is very hard to predict anything that feels the effect of more than two forces. Yet science still presents a universe which is deterministic, obeying fundamental laws, but with a predisposition for disorder and complexity. The difference being that traditional science has always believed that we can solve it if we try, whereas chaos believes that perhaps even the most simple of systems may not be able to be understood or predictions made from them. This lack of ability to predict comes from the fact that if you are slightly erroneous in your estimates of the starting positions of data, then divergences between prediction and actual rapidly emerge.

It is true that chaotic systems often operate to a pattern but that pattern has an infinite variety within. Chaos shows that small changes lead to bigger changes and that the universe is ruled by persistent instability. Accordingly any attempt to predict future events such as Newton's 'clockwork' universe, including the solar system and the trajectory of the planets will be futile. Likewise complicated behaviour does not always necessarily mean it is the result of complex laws. So Chaos is able to reconcile a haphazard changing infinitely varied world with simple-fundamental laws of the world.

If errors grow at an exponential rate in a chaotic system, and human systems are chaotic, then this has interesting reproductions for our predictions as a science. Davies (1992, p 215) outlines method changes in psychology in regard how it interprets its experimental data as a result of chaos:

> For a while, it was commonly believed that apparently 'chance' events were always the result of our ignoring , or effectively averaging over

> vast numbers of hidden variables or degrees of freedom. The toss of a coin or a die, the spin of a roulette wheel. These would no longer appear random if we could observe the world at the molecular level. The slavish conformity of the cosmic machine ensured that lawfulness was folded up in even the most haphazard events, albeit in an awesomely convoluted tangle.

Determinism therefore seems to a completely inappropriate model for science to adopt for the human, rather a chaotic model of probabilities or bounded chaos is more realistic in every way. In a world educated to principles of chaos people will no longer cringe over foolish deterministic statements from the worlds disaster sights. As the responsible party proclaims that they have 'taken steps to ensure that such a disaster will never happen again'. Its no wonder, with this kind of false optimism that such an accident will happen again much sooner than it would have.

Samples of behaviour although appearing complex may be in fact ruled by simple behaviour as in the mandlebrot set, created from a simple formula, the bounds appear to be infinite. The sample system Psychology uses is therefore particularly useless in a chaotic system. So to have a useful study of the human which is meaningful and helpful to that human the humans relationship to society in its fullest needs to be acknowledged. Acknowledging that relationship to its fullest means a conception of a chaotic human social context is needed, so techniques as sampling need to be seen realistically. For example it is little wonder to chaoticians that the biggest reputation political polls have, is for getting predictions wrong. Facts of certainty derived from the scientific method should be seen as an illusion.

Unfortunately in mainstream psychology there has been no analysis of the human in context of a social setting. What is need is the equivalent of an earth mover in psychology in terms of attitudes and methods. Of course the reason social settings and context is avoided consciously or not becomes clearer when the implications of chaos are considered. These are, that the enormous task of trying to come to terms with a complex chaotic system of rational of human thought is not pleasant for determinists, and the determinist submissions to journals pay the bills and get the promotions. But the human social

being *is* organised in a similar way to physical systems and physical systems are fundamentally chaotic in nature. Psychology must rid it self of the obsessive individualism which uses a micro level of analysis. The implications of Chaos and common sense are that, you can not study a society or the individuals in it by isolating a small part. By measuring that small sample and applying any trend found to the larger uninvestigated whole, justified by the fact it is a random sample is not in a chaotic system accurate. The sample will not necessarily match the whole, no matter how randomly it is selected and what statistical strength is gained. All that will be seen is a tiny part of an enormously complicated motion, resulting in a picture which appears as random and with no structure. Only by relying on generalisations or massive has such a experimental method of reductionism and statistical sampling remained. Its almost complete lack of success in Psychology bears testament to its poor methodological base. Humans are chaotic, they cannot be separated meaningfully from their society and that society is a bounded chaotic system to.

Chaos theory attempts to reveal the subtle relationships between simplicity and complexity and between orderliness and randomness. Chaos's role in this Thesis is to show that human are essentially 'non linear' and subsequently any 'linear' method of analysis will be limited and inherently an incorrect method to use.

B) Linear laws and Determinism

Classical mathematics concentrates on linear problems for a very sound reason, it can't solve anything else. Unfortunately for psychology meaningful linear problems are unlikely to very common, if they even exist, in human society. Non-linear problems should be treated as non-linear problems and not as simplified linear problems. That universal laws may exist is not disputed but that it is potentially beyond the ability of psychologists to derive them from their data. Psychology puts an ideal representation of the problem to be analysed. Now it might be argued that for the sake of progress this has to be done, but Chaos has shown us that simplification no matter how small, will make a difference. Even in the unlikely event that there are no

errors in omitted variables and the measurement is perfect an unexpected result may ensue. So the traditional form of scientific method limits our applicability to the world and those in it. Psychologists do not, quite naturally, want to get less accurate research results even though this would mean accepting the reality of the situation. To avoid this a simplistic representation in a highly controlled environment (the laboratory) is used. Naturally even in this environment unexpected results are acquired but to still avoid chaotic implications this is blamed on noise, which implicitly blames the psychologist and their experimental design. Chaos in short could very well mean Chaos for the researchers, where no pattern emerging is a distinct possibility in what was before considered the simplest and most reliable of tests. Yet why is it that psychologists can get reliable results, and that strange deviations from the norm are not reported more often? When a psychologist gains a inexplicable result, the psychologist is viewed by others and themselves as having made a 'muck up' of their research. More importantly, the work will not be published and therefore the results are thrown away and the experiment done again, or the data is 'fixed' in a less than scrupulous way. The outcome being that such research is not sighted.

The belief in Chaotic systems is at odds with the status quo of Determinism, which believes that if you know all the relevant information you can predict the future with precision, that given the same set of data the same outcome should result.. Here are some problems with the traditional model of determinism 'Chaos' has found.

1) Deterministic models can lead to non deterministic outcomes. This has obvious and great implications to those in society and how psychology as a science should teach them.

2) This is because the scientist can never know, exactly, for sure the starting position or state of anything they are studying. In all systems this will eventually lead to gross inaccuracies in prediction and in Chaotic systems inaccuracies develop extremely quickly. So Determinist systems soon appear to act in a non Determinist way.

3) Determinism officially died with Quantum theory, where at atomic level a lack of Determinism is apparent in physical laws. Quantum physics has in fact built chance into the very fabric of scientific reality. Quantum theory has shown that the belief that the future can be predicted with enough information is flawed. But it still seems to persist in Psychology. Contrary to the popular belief of determinism, in chaotic systems the more data you have the more uncertainty there is.

Although Chaos may appear to be complex and non-deterministic there is hidden within it a wealth of information. For example in the midst of apparent chaos, the phenomenon of Strange Attractors appear. Strange attractors are unexpected gatherings of data at one or many points. Plotted on a graph such groupings of data appear symmetric but are in reality data averaged to form a regular pattern. The lack of ability to predict behaviour in a situation is fortunately mitigated by boundaries and trends to limit this unpredictability. These bounds appear and are referred to as an attractor, so the attractors are boundary conditions which make probability statements in a chaotic system possible. Strange attractors are never repeating but yet always resembling themselves infinitely. Strange attractors may be what psychologists identify as rules, or laws of human behaviour. Due to the fact that they never exactly repeat and are only a trend, may explain why psychological laws power of prediction are not as great as physical laws. And why Psychology should not use the same rules of acceptance or rejection of a law. Therefore the pragmatic standard, of how useful to well identified goals are laws, is what is crucial and should determine which theory to accept and which to reject.

Often rules which appear to be deterministic have only been phrased that way for public consumption while in reality being governed by chaotic laws. The phenomena of growth is governed by chaotic rules, yet the growth appears to be regular after the rate of growth is averaged out. Another example is where engineers found the wheels of trains were wearing out faster on one side of the trains than the other, but when the more modern model trains were allowed to go faster the disparity in rate of wear on the wheels disappeared with both sides wearing out just as fast. This puzzled the engineers who anticipated a greater problem, that one set of wheels would now wear out much

quicker than the other. The answer lay in the higher speeds of the train setting up a chaotic motion of the train on the tracks, (bounded in that the train cannot leave the tracks but can vibrate and shake), this chaotic motion on the average works out to be roughly symmetric as opposed to the motion at lower speeds in which discrepancies in one set of tracks, or one side of the train to the other resulted in a motion of bias to one side. In effect the higher speeds drowned out the influence these biases because the chaotic motion was entered into. For a display of the same process turn on the tap. At lower speeds of water flow the water comes out of the tap in a symmetric flow, as the speed of the flow is increased by turning the tap on further the water goes to more complicated flows and eventually to turbulence.

Psychology reduces, as a science, everyday actions to a matter of simple truth or falsity, this is inappropriate and dooms successive generations of psychologists to frustration. There is no scientific issue in Psychology that does not have two sides, both with their respective evidence. Both sides having sets of evidence gathered using the same scientific principles which are meant to be as qualitatively good as each other. Why when if both sides use the same fail safe method is opposite evidence and conclusions found? The answer may become clear if the discipline of chaos was adopted. Chaos states that two different answers are possible from the same phenomena, if the conditions are replicated experimentally the behaviour may not be replicated. Therefore it could possibly stop psychologists from coming to unnecessary anger, disbelief, confrontation with each other if they understood chaos.

It is the relationship of psychology to society that keeps Psychology and society from adopting chaos as an improved framework for assessing results. The confrontational nature of capitalism in science, and also the attitude that science can understand all is retained because it reassures society and science.

The universe seems to be constituted as one large chaotic system. Look into a Bacterium and you find it to be made of molecules, look into a molecule and you find it is made of atoms, look into an atom and if you find it is made of electrons and the nucleus, look into a nucleus and you find it is made of protons and neutrons, look into a neutron or a proton and you find it is made of quarks, look into a quark and you

find gluons and we reach our present limit, Undoubtably there is something smaller inside the gluons. We can also reverse the process by looking at planets, to a solar system, to galaxies. The point being that the universal both the very small and the very big extends beyond our comprehension and ability to account it.

C) Statistics will have a different role

A very interesting and radical look at the discipline of mathematics was made by Gregory Chaitin (1992), in which founding and vital assumptions of this discipline are rather incongruous with the facts. For example Chaitin (1992, p122) quotes the enlargement of the use of numbers ,

> ...our concept of number has been often enlarged-when it is necessary to find a numerical solution to a problem.
> The concept of a number is enlarged so that mathematical problems that should reasonably have solutions do have solutions.
>
> In elementary number theory, questions involving diophantine equations can give answers that are completely random and look grey, rather than black and white. p 197

Chaitin has a rather disturbing and interesting analysis of mathematics, as he shows that mathematical truth is sometimes nothing more than a perfect coin toss. This statement would probably not go down very well with most mathematicians but it is the truth. The idea that every mathematical problem has a solution, it seems is a very shaky assumption, with many mathematical problems not having clear answers. Chatin (1992, p 197) goes on to comment that: "Einstein would probably be horrified to discover that God plays dice not only in quantum and classical physics but also in pure mathematics". Mathematics as a basis of rationality is rather ironically largely made of

irrational numbers, even geometry cannot be performed without referring to irrational numbers such as the square root of two. A typical real number has an infinite chain of numbers in decimal. Consequently a continuous line described by real numbers is a fiction, it is impossible to take a point on that line and be assured it is exactly an even number. There will always be input errors as soon as you try to apply mathematics to any applied problem, to any real problem. As a result mathematics is only accurate as long as it stays out of the real world. In particular the use of snapshot statistics, using small samples is simply not good enough. While the results are perfectly scientific and perfectly valid they do not necessarily equate to with the right results. Statistics need to be upgraded, psychology needs qualitative methods which help in understanding verses descriptive quantitative methods which are proclaimed to help in prediction but Chaos has shown this to be an absurdity. For example measuring the distance or position of two points on a line in reality requires an infinite amount of information to gain exact position, that is to have no error, this would take an infinite memory that cannot be known.

If we accept that prediction is out of the question in chaotic systems, the problem of where psychologists can publish non predictive research becomes ominous. The ignoring of chaotic systems and allocation of research resources reflects the idealised goals of prediction and control. In chaotic systems we can only understand, in non chaotic systems we can understand control and predict. The key then is ascertaining whether the system you are studying is chaotic or not. For in Psychology it would seem certain that the human system of thought and action on a meaningful level of analysis (one which takes into account the social context) often are chaotic. The positive implication, on the other hand is that what appears complicated may indeed be obeying simple deterministic laws. The possibility of discovering a law which explains the fabric of the universe made from a simple common formula exists. Yet as humans psychologists may be destined to never know if such laws are there to discover.

D) Conclusion

In the past science served society's need for understanding, removing mysteries, and establishing law and order over uncontrollable events. The social structure then rewarded science, Psychology included, with institutional rewards for this kind of research. Perhaps now Chaos has been developed in response to a societal need to regain mystery, chance, and to have an exciting future. The present generation may not be as interested in order as previous ones so Chaos theory serves a psychological need. Perhaps in society individuals feel a need to be free, free of an all knowing and determined world, and would rather have a world where there is uncertainty. That the individual in today's society feels too much rational control, from the power of the state and institutions, that have developed in society. This perhaps shows a more subtle level of the relationship between science and society.

Chaos can be applied to any naturally occurring phenomena especially our own lives. Life being a bounded chaotic system in that there is a staring point with increasing options and diversity for that life as we get older till we reach a certain age where the physical bounds of the chaotic system start to increasingly limit the options and diversity of our life until the final point of death.

Humans in essence try to break down what we cannot comprehend in its fullest scale to its smallest parts but this reductionism has not delivered an understanding to the problem. Yet we persist in analysing the individual without the social relationship and still talk about them as a whole. The approach of reduction into smaller levels of analysis, studying things in smaller and smaller units of analysis, works well for the physical sciences but with the human system psychology must consider the whole-whole. Because if the human system is chaotic then it will fracture endlessly, and it is no wonder psychology is unable to gain the necessary understanding through reductionism.

If in science the goal is to predict and control then everything must be known. But to know everything, that is an infinite amount, at an infinite precision would require an infinite memory and once a person or machine with such an ability started to think about something to see what would happen, they would change the problem pondered. So pursuit of prediction and control seems a rather ridiculous pursuit psychology to have as its guiding aim, but that is exactly what it tries to

do. Psychology in fact would call such claims to the contrary, that it is anything but 100% accurate, objective and predictive as slander. Psychology as a science must become honest with itself and its society. Namely psychology's demand for repetition before a theory can be accepted may be tempered somewhat by the knowledge that a chaotic series of data from an initial condition may be a non repeatable event. Chaos may simultaneously help us therefore to understand human behaviour while seriously questioning prior conclusions and methods.

Chapter Eight

8) Overview of What Psychology is and its Problems

A) Overview

There is a power relation between psychology and society. Psychology in this relationship does not help society with its real problems. Because of psychology's methods and philosophies of science adopted it does not even see such problems as a relevant concern. Psychology is still trying to discover universal laws in a reflection of its empiricist aims. Prediction and control as aims of empiricism are also more limited by findings of chaotic science. Psychology merely describes a problem rather than adding a meaningful analysis to it. To obtain a meaningful analysis several steps must be taken, most crucially the elimination of the value free fallacy. Refutation as a means to decide which theory is best is not working. Statistics are overused and psychologists pay almost exclusive attention to them when accepting or rejecting a hypothesis. Research standards are set by journals which simply reflect the status quo subsequently too much emphasis is placed on the amount of journal publications a psychologist has achieved. Individualism is rampant in psychology, whereas a interactive model is clearly the more realistic one. As both the individual and the society simultaneously interact and effect one another. The lack of social structural analysis is a critical flaw in psychology. Funding of

psychology plays a large part in what kind of science psychology is. Accordingly instead of science being determined by scientific means is it is instead determined by economic means. Psychology needs to become involved on a socially meaningful level otherwise it becomes a pawn to the social structural influences it ignores.

B) What Psychology has to Offer Potentially and What can be Done

The structural forces supporting the status quo are strong and if intellectual changes are to succeed they must be reinforced by structural changes to remove the abuses of those non scientific-societal influences. The scientific world and the social world are inseparable so the best scientific relationship between them must be obtained.

Involvement in Public Funding on a Political Level

The links between psychology and politics are strong but not very clear to psychologists. Therefore a thorough involvement and analysis of political psychology would certainly be worthwhile. Indeed on some levels politics is not far from psychology, both are largely concerned with the conditions and consequences of human action and motivation. Chaos it would seem is an entirely appropriate model of analysis for psychology to use in Politics, Kessel (1993, p 9):

> It is perfectly true that much behavioural research on politics is concerned with simple questions. But a simple question is not necessarily a simple matter.

> Another problem of getting planed change in society is power and politics. Realisation is dependant on mobilisation and utilisation of resources, the development of support, and neutralisation of opposition. Hall (1983, p 87).

The political process to date has been viewed particularly by academic psychologists as a environment which is totally inappropriate for Psychology. Inappropriate in that if psychology was to get involved it would taint the respectability of the discipline. Yet as Bandura (1974, p 859) believes such involvement may unavoidable:

> As a science concerned about the social consequences of its applications, psychology must be also fulfil a broader obligation to society by bringing influence to bear on policies to ensure that its findings are used in the service of human betterment.

Even the normally conservative Atkinson (1977, p 207) seems to admit that political evolvement is the pragmatic answer:

> The psychologists, job as a scientist is to search for data principles and laws that enlarge our understanding of psychological phenomena. There is no reason why psychologists should not advocate political viewpoints, but they should only advocate them as individual citizens.

Hall (1983, p 88) shows how power and politics is crucial to Psychology; he asserts "the central features of organisation can be seen more vividly as structured by power relationships and in the interest of those with power." Therefore the establishment of an effective psychological Political force that works (ironically) to keep politics from influencing its science must be developed. Indeed the individual theorist and practitioner in psychology would ignore political influences to their own and others detriment. Psychology's organisational myth of innocence from such influences maintain and conceal those very powers. Our traditional models and interventions represent organised fictions that provide the rationality and order when there really is none. White (1980) argues that if Psychology is going to get involved in politics, this will require support of one faction of politicians naturally their enemies will feel obliged to hit back at psychology. Therefore, our position may be attacked not on a scientific

basis but on a totally irrelevant basis. But psychology has no real power over those decisions now anyway so why not at least gain something. All Psychology can do now is squabble and fight for the pennies the politicians now give. Psychology should face up to its responsibilities, the responsibility of publicly advocating a political course of action; it can not remain scared to do so. Whether politicians attitudes are good or bad is a pointless consideration. If he or she advocates the position psychology wants, then the outcome and meaningful action is achieved. Actions are far more real than intentions.

Some suggestions for a model of psychology in political life are as follows.

- Become knowledgable about policy making and train those who will have to deal with policy makers in such a specialty.
- maintain knowledge of up to date events.
- Be patient and have a thick skin.
- Keep educational and advocacy roles separated.
- Seek directly, or through advocacy, public office at the highest levels.

C) Reward and funding

The following points outline changes necessary to avoid an undue influence from sources of funding to maintain scientific integrity:

- Change the conditions of Journal Acceptance, editors should assign greater importance to external validity, social relevance, and potential for practical application.
- Reward articles which are a change from the mainstream. Once a position has been stated once an endless Repetition of articles stating the same thing should not be accepted as is the case today. Only papers which look at the problem from a different light should be encouraged.

- Hiring, tenure, promotion and student grades should be evaluated on the basis of the best works of an applicant, not the one with the most, this would therefore reward quality rather than quantity.
- Grants should be given to projects of social relevance.
- awards should recognise multi-disciplinary work.
- Post graduate student selection should encourage cross disciplinary majors.
- A realistic emphasis on speaking ability should be required, it is the most used form of communication and most effective in any situation from business to teaching.
- Require cross disciplinary specialisation and knowledge at all levels.
- Encourage and reward joint degrees.
- Psychology should always give definite answers even if that answer is a definite 'nobody knows'.

All these points are fine, but they will require strong and unique leadership for them to achieve what they are meant to. As far as one can tell, there is little evidence of a powerful and decisive voice coming from psychology on even psychological matters. The litmus test is the average person on the street; if they are not aware of such leadership it has failed and in reality is impotent. Once again I have no magic wand to wave concerning strong leadership, but I do have some ideas of what kind of leadership psychology should pursue. Such a leadership would have to value both monetary rationality and social knowledge and consciousness. Such leadership would have to be democratic and fully accountable, but retain the power of effective action. Such leadership must draw on the power of all psychologists while serving all. Fundamentally and most importantly such leadership needs to protect the integrity of Psychology as a science which helps people. If such a leadership sounds unobtainable then this is an indication of the forces ranged against it to make it seem impossible. If psychologists see no hope of such an organisation coming to fruition they should start to try to implement it, for without even trying the

science threatens to disappear. Perhaps that is the goulish near future brought about by economic rationalism that is needed to kick start psychology again. The cause for psychology cannot be argued in government by a discipline which is so loose and divided. Whether psychology can gain a single unified voice is debatable but until it does, with all the waring parties agreeing to at least fight for the superordinate motive, the abilities of psychology are limited and belong to those that pay them. A healthy science does not necessarily mean a healthy society. Nazi society epitomised modernity, the nation stood at the pinnacle of world achievement in scholarship and technology. But because science believed it had nothing to do with the society it was in, yet funded and controlled by that society, as it is now, it was unable to resist becoming a pawn for that society. This failure to see the relationship between science and society led to in this case science being part of the final solution, and using crude anti-Semitism in an intricate philosophical theory. Human psychology finds it comfortable to believe that such a disaster could never happen again, but it is only after the fact that people become aware, when they are no longer blocked from awareness by there own involvement in such a disaster of humanity, that it has happened. The potential of the human to inflict pain on others should never be underestimated, Milgram estimated in his famous experiments, that 1 out of 1000 people would shock their 'subjects' until the end, it turned out to be 26 out of 40 were prepared to do so. Psychologists are human and will also shock 26 out of 40. There needs to be no separation between scientific responsibility and moral responsibility.

D) Psychology and Society

It is a mistake to think of or to talk of psychology and then society. There is no psychology outside of society. Social and scientific forces work in tandem and psychologists should investigate this relationship. Instead psychologists remain true to the scientific method of logical positivism to try the impossible and weakening effect of removing human influences on their investigations and experiments. All concerns of society are valid concerns for psychology, otherwise the problems

that are attempted to be solved are the ones which seem solvable and the ones not attempted are found in the too hard basket. There is an absence of a method to use, to view a problem in light of both the individual and society simultaneously and not as distinct parts. However, there is needed a *form* of distinction between the two. The distinct elements are needed to be seen as separated but not independent. For example does the removal of the cold war tension effect the individual psychologies of people on either side? If there is a change is it mirrored between the two sides or not? And does the change in individual psychologies effect the social structural relations, for example, because the people fear war less they become complacent and therefore increase the likelihood of war? The world has never been as integrated with more and more interdependent problems. These problems are the domain of all and threaten our existence. And perhaps therein lies our salvation, with common problems the potential motivation is there for the world and science in particular to unite in superordinate goals.

Bernal (1967) fifty years ago identified the crucial aspects of sciences relationship to society. Krober (1988, p 250) reviews these and affirms their relevance today as three fundamental relations to society.

1. Bernal perceived science as an integral part of both the material and economic life of our times and of the ideas which guide and inspire it.
2. Its application both to the satisfaction of human needs and to the processes of productive industry through which modern society can be satisfied.
3. as the chief agent of change in a society, from unconscious technical changes to direct social change itself.

Perhaps then if science serves society's majority of humans and industry it is easy to see where problems occur. In capitalism the two are looked in struggle and their respective interests are usually diametrically opposed. One benefits at the expense of the other. So science can not effectively benefit them both. When one side controls science they develop science to further their own interests over another. Science is something which is fought for, and the respective power in

society gains a certain amount of the scientific resource to further its own gains, eg the military in war mobilises science to increase its killing power but in doing so gives science a large boost in ideas and resources. Such relationships show there is no objective vacuum in which scientists work.

The arguments against separating psychology from society to make sure psychology stays independent may not seem to make logical sense but require wisdom. If I may use the example of a cult that tries to retreat totally from the world, living in isolation; all they will achieve is to replicate the world's problems in that isolated settlement. In fact, such groups are often the locality of the worst aspects of humanity. Likewise psychology through empiricism has logically tried to distance itself from the outside influences on the pure task of doing science, only to be more vulnerable to such influences. The problem needs to be looked at not only from an analysis of logic, which is wonderful for producing methodology and analysing logical phenomena, but it only gives you a scientific analysis. Psychology must include the social structural influences in its analysis if it is to incorporate meaning into its work without being overwhelmed by such influences. As Heikannon and Alestalo (1983, p 122) intimate science has unavoidable social ties which effect what it is and what is done with its products;

- The social goals and societal needs to which science can be expected to contribute.
- The potential's of the science and technology system for generating relevant knowledge.
- The practical application of research results, and its consequences.

To maintain the integrity of psychology from the social structural the social structural must be included, not ignored. Social psychology is one of the few areas of psychology where there meaningful problems of humans in their social context has been investigated. Yet too often such experimental efforts are criticised for the complexity of the situation, in terms of possible variables, and such work has been devalued. The response has been to pay little attention to the human environment and in accordance with experimental design, the human

condition is studied away from the complexities of the real life setting. So we have a cartoon image of the human due to the unduly complicated nature of the human society frightening investigation away. The natural setting would ruin the experiment because it 'just makes things to hard', this is a very poor and limiting attitude. The principle of testing theory's outside their natural sphere is fine in the physical sciences, but in the human context this is not adequate.

E) Psychology Should be a Science But has to Reconceptulise What that Is

A balance must be struck in the science of Psychology that must take into account the immovable limitations of that science while not stoping these limitations from improving the methods that it already has.

The justification of a scientific theory is a matter of working out its observational consequences and testing them directly. The truth of these consequences leads to indirect support to the theory that gives rise to them. But all observation is theory laden, so theories generate their own supporting evidence. Anti-positivist and anti-empirical critiques have to a certain extent represented an over reaction. The inadequacies of logical positivism have been refuted well, in that there is no distinction between observation and theory. However the position is too extreme in that the rationality of science has been undermined greatly. The criticism of science must be tempered by a commitment to find better methods and theories. For it is easy to criticise science and psychology for not being perfect, but nothing is that is human, so to remain pragmatic, psychology must be accepted as imperfect. The psychologist should not hide or aim to be perfect through a mystical impeccable science. Yet psychologists should not abandon trying to be a science however, as being a science entails many advantages. The motivation for being a science should be in the interests of the consumer of that science not in the interests of its members.

Psychologists should be disciplined practitioners of the human being, in all their relevant motivations, emotions, behaviour and thought pertaining to whatever issue is at hand. The motivation of

psychologists must be to help people gain consciousness and that entails helping them understand their world, themselves and others. The psychologists must be open enough to help people with what are the relevant problems for them.

Scientific laws are not the only or main explanation, rather they help to support the explanation. In history, for example it is hard to see how a scientific theory can add to a narrative, an input, that is, that would add any meaning. The content of an explanation is distinct from the grounds used to support its truth. This is indicated by constant reworking of what the current content of the explanation is as time goes by. Consequently, the notion that science is an objective process of determination of truth is a myth which has been propagated, and the sooner it is removed the better. These points are made to emphasise that science should be seen as a human process not solely a logical process. That is, that to understand anything to do with psychology one must use intent, motivation and the needs of the actors.

The psychologist should not be seen as the expert, the professional, the superior, but the equal partner in maintaining integrity, mental health in the individual.

Psychology is a science of social problems and as such has problems which rapidly develop and mutate; yet such problems require immediate attention. Science requires time to find solutions, however, which could take years to develop. The future relevance of jigsaw like pieces is not always clear, so both the potential immediate and future benefit should be stressed. Still the problems that a psychologist must face and the speed to which answers are developed are running at different speeds..

If psychologists are affected by their own biases, ie. if a phenomenal exists and the psychologist does not believe that it does the psychologist usually will not see it. Likewise, if the psychologist believes a phenomenon does exist when it really does not, they will see it. Where does this leave psychology as a science? Psychology using the same tools, exact same experiment often comes up with a different answers. This tells us that reality is probably far to complex for any scientific system to understand in terms of lasting universal rules of that society. Yet even with these difficulties it does not remove the ability and necessity of the psychologist to have to use their judgement

to decide a course of action. Pragmatically, psychologists must attempt to solve the problems that face society while acknowledging those unresolvable problems.

Using what works best is the premium strategy a psychologist can use in light of the nature of its discipline and the particular problems they face. Rather than feeling arrogant about the abilities of psychological science, psychologists must rather view their science for what it largely is, an act of faith. For example if we think that knowledge can be gained through observation, we are therefore likely to believe that our senses give us an accurate picture of reality. But do we really know what we see is actually here and there. How do we know we are not just simply imagining, the answer is that we do not know. Science *is* an act of faith, the belief of truth is an act of faith. Yet by having scientific standards, methods and improvements it is an impressive and ever more useful act of faith. Humankind is consigned to such acts of faith; glorious or ridiculous is the individuals decision.

Progress

Psychology must learn to change from strength through diversity to strength through unity. If you put your hand out in front of you with the fingers together; then slowly move it forward, spreading the fingers out slowly as you move your hand forward, that is the progress of science. At the base of your hand is science at its most general and aged, the fingertips are the cutting edge of science, each fingertip representing a different branch, chemistry, physics, maths etc. At the start it made sense to spread science as far as possible to accelerate its pace. Today there seems to be no science, no mechanism to investigate the gaps between the fingertips, the branches of science at the cutting edge of science. How does the world practically gather the tips of the fingers of technology and science together. I believe it is crucial and will become more so to have a mechanism, a discipline to do this. Perhaps psychology could fill this niche in the scientific world. The problem today is not gaining knowledge to increase our pace of discovery, indeed the pace is astounding, but rather the problem is dealing with the applications of such knowledge, and the effects they have and putting the pieces together from all branches. It takes a scientific lifetime to push that fingertip a bit further outwards, to understand

enough to do so, but by doing so it moves further away from the others. The human today is incapable of knowing in depth all branches of science, to link them together. In the past brilliant minds have been sprinkled throughout history who can, but now are we victims of our own success, can anyone understand enough to link knowledge together to make the new breakthroughs which are meaningful to humanity? Is there a new and better consciousness waiting out there, which will allow us to overcome some seemingly insolvable contradictions and problems life? We need to re-link knowledge to find if it does.

Sociological Psychology

The history of psychology is presented as a history of scientific ideas from natural sciences, ignoring the social structural influences which had a far greater impact on its development, direction and sustenance. Koch (1969) summarised the progress of psychology as a succession of changing doctrines of what to copy in the natural sciences. A sociological analysis of psychology would entail the following points. Psychology serves the same function as religion used to, to offer explanations of things apparently out of society's control. To correct and punish the offensive person to society and give out the rules of what a person should be. Thus, psychology moved into the role vacated by religion of effectively fostering the interests of the state. So just as society turned to the hope of a liberating religion it then turned to a new promise of science, both however quickly became the instruments of the powerful elites in society.

If there is so much interaction between science and society a knowledge of how science is based on social conditions is required. To do this you need a credible science of society and sociology of science. For example, lecturers at university would have to learn to know what they know.

In deciding what will replace the empiricist philosophies Psychology should recognise its ties with society. Because, what explanatory models are chosen for psychology largely determines what will be achieved. Objectivity, an enshrined goal of science, is but a norm, a

regulative principle, which evolves. We change the world faster than we can discover it, or even understand our changes. Impact in the real world, on real human beings for the common good should be what we strive to achieve. Our explanatory models should be judged on that criteria. If we ignore our ties with society then we will not be able to achieve this. Or even worse still we will allow funding institutions to even further determine our direction. These dangers realised will not produce a psychology for the common good but for a select few. Indeed as the danger is identified in this relationship here also is the avenue of opportunity. Psychology could become the bridging science, investigating the problems arising from the transition from science to society. This role could realise psychology's potential for the common good, in its investigations of the nature of the relationship between the scientists and their lay public and their institutions.

Psychology has, in the search for truth, lost its keys down the road but looks under the lamppost for them because its the only place bright enough to see them. And I guess psychology has to, but if it could just spread the light a little further, and keep in mind the truth like the keys are still out there. That the truth is what psychology is searching for, that should be the motivation for psychological endeavours, not making the area of lamplight as comfortable as possible.

Meaning and bias and social structural influence should not be denied or even discouraged, indeed it could be adaptive in a relationship with Psychology, if that relationship is one of open acknowledgment and self critical examination from an informed conscious position. This is the only way to tie society and its social structural forces to improve Psychology and those it serves. Without such a relationship to society Psychology will not only *not* gain this improved relationship it will continue to serve the inequalities and contradictions produced by capitalism at the expense of science and the individuals it treats.

Psychology is a revolutionary science and as such works best when it is revolutionary. I, therefore, ask psychology to shake itself free from its comfort zone and really question its, and others, positions and motivations. Psychology's aim as it stands now, control and prediction; the ironic aspect is that if it was achieved the public would become so upset about such an intrusion it would have to be canned.

The reason why the public fails to revolt against such positivistic, Darwinian and functionalist 'ideals' of tyranny is that psychology has failed to even get close to such 'goals'.

The problem of subjective meaning and bias is a very hard one, maybe never solvable; but this does not mean it can be ignored, for such ignorance means psychology sides with the problem and contributes to it.

F) Conclusion

It has been shown what psychology's relationship is to society. Now an offer of what psychology's relationship to society should be like is made. What is important for psychology is that it realises its limitations, but it is suggested not to ignore problems as this is not a good strategy for reducing their influence. Psychologists should start looking at what keeps people together and what keeps them in conflict on a societal level. From there could stem an emphasis on encouraging interdependencies rather than differences amongst people. Making the system fit the people is more acceptable than making the people fit the system. Psychology does not achieve the former and should.

Change for the better will require solutions of a political and social nature because that is where the greatest need of humanity can be found. Psychological theory must both recognise the claim of society on the individual and the claim of society on itself. With this new found concentration on the possible and actual mechanisms of society. Psychology could see that social structures are both enabling and containing of the individual. The new psychology would welcome social structural analysis of why inequalities are replicated. Psychology must understand its own constructs and social structural relationships to society to be able to change such structures and relationships adequately.

Psychology should become active in bringing about consciousness to psychologists and the people it try's to help as conscientization is a process of considerable worth. It aims to free peoples view from social structural influence, to give them an understanding of where they are in the social structure and why they are there. Conscientization is not designed to make people to think a certain way, but a process where

people are allowed to think, to have options and truly make informed decisions which will serve them.

The science of psychology should not accept fact but simply see knowledge as the best alternative available at the time. Knowledge should be seen as a line drawn to a certain degree of acceptance, a line that has to be drawn for pragmatic reasons. Psychology should not try to hide the fact that it has no complete answers for all problems, but it should aim to achieve that complete answer. Using the best solution does not mean accepting it totally and the power of negativity should play its part in continually challenging the current methods and theories. Knowledge itself may not be the most unattractive feature of Psychology but rather the means and relations to society which it is created in.

The Psychology of the future must find a balance of research designed to test theory and solve society's problems. This may seem to lead to a double life for the psychologist, but it is no more than mirroring the nature of a great deal of psychologists who are simultaneously teachers and researchers at the same time, which mirrors the duel role of studying humans and being one.

How people perceive the situation is far more important than 'true facts' and the sort of laws that hurl them out at an ever increasing rate. Psychology should remove the rule that discrete observable behaviours are the only data for physical study and that these behaviours can be or should be studied in highly controlled and artificial environments. The differences between humans are as large and infinite as the similarities between them. At all times we must remember our conceptual limitations and that we live in a world of apparent paradoxes.

Psychology as a science will never be right by the 'fact' but by the pragmatic standard, and by being the best we've got. This pragmatism rests on the belief that there is an objective sphere of mind independent reality which exists in its own right. This proposition is not something we can learn from experience. It is a presupposition for our experience, interpreting inquires rather than a product thereof. We make this assumption on functional grounds rather than evidence. The assumption is needed to be in a position to learn anything at all, which is justified by functional necessity as a pragmatic standard. The validation of this pragmatic standard in turn is provided by hindsight,

when indeed the functional utility, pragmatic and explanatory efficacy of a theory becomes clear. Without such a standard of pragmatism psychology cannot survive. Psychology could not act effectively without rationally warranted confidence in its knowledge. Psychology cannot achieve such confidence without rational inquiry based on such a realistic premise. It is however a question of deriving what people see as the 'facts', because the perceived facts will largely determine their actions. Although it is nearly impossible to analyse or discover true facts, they still exist as the fundamental reality and therefore they will still play the crucial role. This does not seem a particularly fair set of rules to play with, the truth is causal but psychology can never know it because to know it psychology would have to know everything at once; remember it isn't up to psychology to create reality, to determine it, its already here, just be thankful we have the capability to ponder it and find it interesting.

All of what I have written has been written before, all knowledge that is discovered has been known before, my references show just how old this criticism of psychology is. The criticism of psychology's relationship to society is summarised often and well in references in the 1950's, but it still stands. It still is a problem yet to be addressed by psychology, no one it seems wants to face it, the in built problems of psychology The very things which make psychology unique are acknowledged but then ignored. Psychology's relationship to society actively rewards it for not investigating these 'inappropriate' problems. But the problem remains, it grows to be more relevant each year as the potential for psychology grows and slips further away.

Psychology is crying out for an ideal in which the well being of society is fostered. Acceptance into journals should be first, contribution to the well being of humans, followed closely by quality of work. It should not be a case of how well an author has used obsolete agricultural statistics to beat up a straw man. Many lofty goals have been suggested, and although they are indeed lofty this does not make them any less desirable to pursue. If psychology aims low, it will inevitably end up with little to show for its efforts. If it aims high it is more probable that it will have a significant effect on the well being of humanity. Without humanistic and meaningful goals and questions to guide research we are simply meaningless actors in an empty building;

at worst, insidious charlatans to a higher master, our institution, this institution being part of a wider oppressing society. The absence of a moral responsibility results in a fragmentation and a lack of focus on what is important. Psychology should become concerned with teaching the most effective methods, not the most accepted one. In addition, it must accept its complete relationship to society to attain its powerful, but nearly mythical potential. Let us become relevant, spurred on by our greatest gift, the conscious mind who despite there seemingly being no hope or solution stands and fights anyway.

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